

## **Part II – Corridor-wide Strategies and Recommendations**

### **6.0 Corridor-wide Strategies and Recommendations**

Strategies and recommendations have been identified for the STH 26 corridor that fall under three time frames: 0 - 3 years, 3 - 5 years, and 5 - 10 years. Many of the strategies and recommendations are interrelated and are presented as a comprehensive package, although many of them could be implemented individually to address priority needs in the study area.

The ten strategies and recommendations that follow have been organized according to interrelated transportation elements found within the study area. They were developed based on public input, technical analysis, and meetings with local officials. The strategies and recommendations are organized according to the following framework:

1. Understand and Plan for Land Use Impacts of STH 26 Expansion, Bypasses, and Interchanges
2. Employ Tools to Balance Land Use and Transportation
3. Coordinate Local Comprehensive Planning with STH 26 Corridor Plan
4. Develop Functional Roadway Classification Systems and Local Traffic Circulation Plans
5. Protect Functionality of STH 26 Interchanges
6. Manage STH 26 Expressway Sections Over Time
7. Address Long-term Needs of STH 26 North of STH 60
8. Integrate Local and Regional Multi-modal Needs with STH 26 Corridor Plan
9. Protect Natural Resources on STH 26
10. Minimize STH 26 Impacts on Agriculture

## **Part III – Community-specific Strategies and Recommendations**

A digital copy of this section of the STH 26 Corridor Plan and the corresponding maps can be obtained in PDF format by contacting the WisDOT, Southwest Region at the following address or telephone number:

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### **8.0 Community-specific Strategies and Recommendations**

This section of the STH 26 Corridor Plan provides community-specific strategies and recommendations grouped together by specific areas that are delineated by project maps. Thirteen maps span the entire 70-mile corridor and each map covers a distance of approximately five miles. Using local, county, and state data the maps portray roads, parks, future land use, hydrological features, wetlands, and the current EIS improvement alignments on aerial photography.

The strategies and recommendations in this section, and documented on the project maps, evolved from public involvement and a thorough technical analysis. The intermediate step between the needs identification and final strategies and recommendations was the development of planning concepts. Several iterations of the planning concepts were developed in response to public review, consistency with the EIS improvements, and WisDOT/SEH review.

The final community specific strategies and recommendations developed from the above process are depicted on the maps and numbered to correspond to tables that also identify a potential timeline for implementation. Strategies and recommendations were developed for bike and pedestrian, land use, interchanges, access management, and transportation. Not every community had recommendations in every category.

## **6.1 Understand and Plan for Land Use Impacts of STH 26 Expansion, Bypasses, and Interchanges**

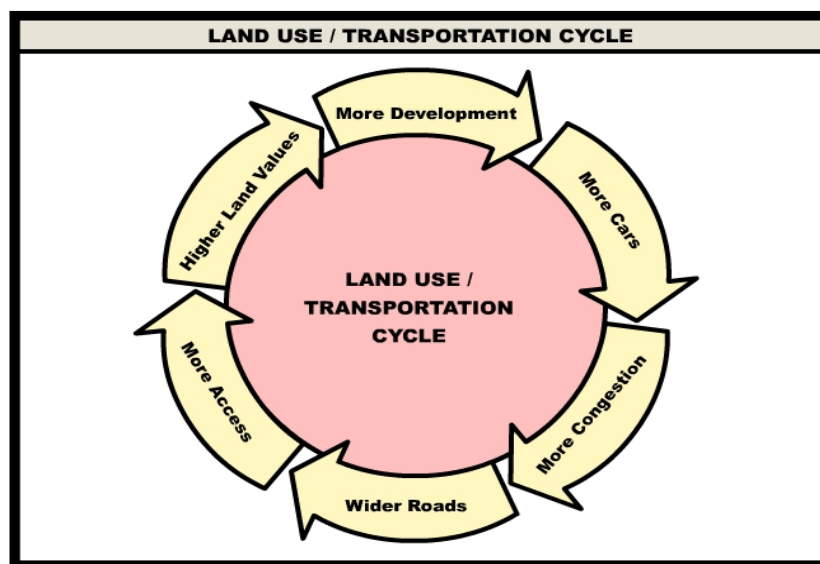
Each component of the land use/transportation cycle affects and is affected by the other. Even though most highway capacity expansion and/or bypass projects are intended to serve an increasingly large amount of through or regional traffic, it should be understood that these projects result in local land use and transportation impacts in the communities that they bisect and/or bypass. The impacts, when not properly understood and managed, can have unintended consequences to both land use and transportation systems. Local communities adjacent to STH 26 should be proactive in understanding and preparing for the land use implications of three distinct transportation improvements relating to the STH 26 corridor: two- to four-lane highway expansion, highway bypasses, and interchanges. Though all three are interrelated, they each present their own set of opportunities and challenges. Examples of the types of land use impacts brought by highway expansion, bypasses, and interchanges are summarized in Exhibit 8, Land Use Implications of Expansion, Bypasses, and Interchanges.

### 6.1.1 The Land Use and Transportation Relationship

The STH 26 corridor offers a great number of opportunities and challenges from a land use perspective. However, because land use is interrelated with transportation decision-making, a comprehensive effort must be initiated between local communities and WisDOT to ensure that effective, long-term, sustainable land use and transportation planning occurs.

Transportation systems and land use are integrated components of the social fabric of a community and region. Decisions about land use and development determine the transportation needs of a region - both in terms of trips to and from the area and the transportation modes (automobile, bus, bicycle, pedestrian, etc.) that can be used to make those trips. Thus, land use and transportation decisions affect the level of mobility and accessibility of a region, the viability of each transportation mode in the region, and the overall efficiency of the region's transportation facilities and services. In addition, transportation systems can have land use and development impacts at the regional, community, and site-specific level. When sufficient transportation services are provided or added to alleviate congestion, the newly developed or adjacent land may become even more accessible, resulting in higher land values and greater pressure to develop to a higher use.

The land use/transportation relationship therefore can be viewed as cyclical rather than a one-way causal relationship in either direction. Transportation systems influence land use patterns, which in turn influence transportation systems.



In a balanced land use/transportation system, the land use generated trips are efficiently served by the transportation system provided.

However, where land use and transportation decisions are not considered jointly, a variety of problems can occur. The travel demand (traffic) generated by the development in an area may exceed the transportation system's capacity to accommodate those trips. Land development patterns and building site designs may make travel by alternative or multiple modes of transportation difficult. One of the main points of emphasis of the STH 26 Corridor Plan is the need for concurrent land use and transportation planning.

This cycle always exists but is not always considered in land use and transportation decisions. Land use decisions have historically been made at the local level and major transportation decisions have typically been made at the state and regional level. Land use and transportation decisions that impact the same region could often be driven by different sets of concerns and issues. In recent years, state and local governments have tried to reduce this disconnect by encouraging planning and decision-making processes that consider both land use and transportation impacts concurrently. The STH 26 Corridor Plan also provides the necessary stimulus for concurrent land use/transportation decision-making to take place.

With a basic understanding of the land use and transportation relationship the specific changes that will occur as part of the STH 26 improvement project can now be addressed.

#### **6.1.2 Two- to Four-lane Highway Expansion**

The STH 26 improvements include an expansion from two- to four-lanes from the city of Janesville to STH 60, just north of the city of Watertown. This expansion will affect local land use in a number of ways. The four-lane expansion of STH 26 will increase accessibility to adjacent land. The increased accessibility may result in a population increase that will increase the number of trips on STH 26. A trip that once took 20 minutes may be reduced to 15 minutes on the improved facility. Improved travel time may also generate new or diverted trips in the region. The new trips can also stimulate a change in the lands highest and best use. Existing agricultural land may be considered for residential or commercial use as a result of the improved accessibility and/or increased number of trips.

The STH 26 communities most likely to be directly affected by the two- to four-lane conversion are the rural areas located outside the cities of Fort Atkinson, Jefferson, Milton, and Watertown. In rural areas between the bypassed cities, STH 26 was typically kept "on-alignment" due to factors such as existing corridor conditions, safety/mobility needs, available right-of-way, and cost.

Land use impacts that result from the highway expansion are one of the most critical issues to understand and address. It is important that

these local land use impacts be anticipated and planned for in a comprehensive manner. Common land use implications of two- to four-lane highway expansion include:

- Increased traffic once the highway is expanded.
- Increased accessibility, attractiveness, and development speculation of land along highway.
- Increased development pressures, especially at interchanges and at-grade intersections.
- Increased property values of land abutting the STH 26 corridor.
- Potential for increased travel distance/time and indirection for some properties abutting the highway due to the presence of a median (limitations to right-in/right-out).
- Increased reliance on the four-lane facility to serve both local and through trips (a function it is not intended to serve).
- Decreased ability to maintain farming operations due to crossing limitations on the four-lane highway.
- Land swaps between farming operations on opposite sides of highway.
- Population increases within the region.
- Increased regional travel and tourism expenditures to the region.
- Increased tendency by abutting communities to plan/locate highway-dependent commercial development directly on the highway (commercial strips or nodes).
- Increased need for communities to anticipate and plan for indirect and cumulative impacts of the highway expansion (e.g. transportation facility provides increased accessibility to abutting farmland, farmland is converted commercial use, commercial use creates additional employment opportunities, new employees require new housing, new housing is constructed on farmland, less farmland is available and/or productive).
- Delayed and unresponsive land use plan updates by communities to incorporate highway expansion effects into local land use plans and zoning and subdivision ordinances. Communities often wait until the next plan update, which could mean a delay of five to ten years. This timeline is often too late to offer the community meaningful opportunities to plan for increased development pressure. Land use pressures and developments in and around highway expansion projects are much more dynamic and need to be addressed prior to expansion in order to effectively address the land use impacts.

An example of the types of land use impacts brought by highway expansion can be found on Exhibit 8, Land Use Implications of Expansion, Bypasses, and Interchanges.

### **6.1.3 Highway Bypasses**

Highway bypasses redirect both the physical roadway location and much of its associated traffic around a community. Bypasses are often proposed by either WisDOT and/or local communities as viable alternatives to address issues such as declining transportation facility safety and mobility, negative traffic impacts to a community, limited available right-of-way on the existing corridor, etc.

Highway bypasses are often constructed on new corridors and alignments, and typically do not provide direct access to them except at interchanges. A highway bypass can range from a minor bypass of a community's immediate downtown to a complete bypass of the entire community, often constructed outside of the community's municipal limits. In addition to being a large consumer of land, highway bypasses also have direct land use implications that must be understood and managed. The bypass implications on land use should be understood and planned for by the community receiving the bypass. Adjacent towns also need to plan for the implications of the new bypass, as they will contribute much of the land for the facility.

Three communities will be bypassed as a result of planned STH 26 improvements. These communities include the cities of Milton, Jefferson, and Watertown. The city of Fort Atkinson, which was bypassed in the 1990's, will have its existing STH 26 bypass expanded from a two- to four-lane facility. All four communities will be affected by the planned bypasses. Even though Fort Atkinson received their bypass some time ago, the addition of neighboring bypasses and increased mobility through the region will continue to affect the community and its land use.

The impacts of bypasses are not new and are visible across the state. Common implications of highway bypasses include:

- Creation of a barrier effect within and/or between communities both from a physical and psychological perspective. These barriers have land use implications such as changes in community/neighborhood connectivity and/or isolationism, limitations to local traffic circulation, and creation of obstacles to multi-modal facilities.
- Need for the creation of local traffic circulation routes to prevent relocation of the community "Main Street" and associated local trips to the bypass facility. In addition, it is critical to have dedicated grade-separations over/under the bypass to allow all the

modes of travel within the community to circulate without funneling all movements through the bypass interchanges.

- Increased highway noise and potential impacts to noise-sensitive land uses such as residential development, parks, schools, etc.
- Creation of new informal “growth boundaries” leading to annexation pressures.
- A change in location, type, and intensity of land uses within a community, often creating unintended competition between downtown and interchange development.
- Less traffic through the downtown on the original highway corridor which offers the opportunity for the area to reinvent itself by making improvement through reinvesting, redeveloping, streetscaping, traffic calming, etc.
- Creation of economic opportunities and challenges for the downtown with the decrease in through traffic. Typically 40 – 60% of the original traffic is diverted to the bypass. Often a community may need to change its economic focus in the downtown away from highway-dependent land uses to non-highway dependent (destination) uses.
- Land use planning efforts are typically not dynamic enough to be able to respond to the land use influences brought on by a bypass. This often leads to haphazard and unplanned development, inconsistent with community goals and visions.

#### **6.1.4 Interchanges**

When major transportation facilities intersect freeways/expressways, it is often necessary to provide access across and on/off the system. Typically an interchange performs this function. From a transportation perspective, interchanges are a vital link in the system. They provide access from surface streets to freeways/expressways, and may be required to handle high traffic volumes. However, until recently, interchange areas have not been given the forethought or scrutiny necessary to preserve their safety, operation, and function.

Highway interchanges can have a tremendous impact on the intensity of development pressures in the surrounding area. Interchange areas are complex, affecting land use, property values, economic development, travel demands, local traffic circulation, and tax base. Stakeholders are equally complex and include local and state government, the general public, landowners, motorists, bicyclists, and pedestrians. If land use and supporting access are not sufficiently managed, they can cause safety, operational, and functional problems within the interchange area. In addition to the affect on the interchange, improperly developed land or poorly located access



points can also negatively impact the mobility function of the highway mainline itself.

Interchange areas also provide opportunities for economic development, due to the close proximity to four-lane expressway and freeway systems. Economic development opportunities include:

- Residential development
- Office parks
- Major retailers and big-box development
- Highway-dependent commercial development (gas stations, fast food restaurants, truck stops, hotels, vacation-oriented businesses, etc.)
- Industrial and manufacturing industries
- Tourists, recreation, and vacation-oriented facilities
- Institutional uses including schools, churches, medical facilities, and government centers.
- Park and ride lots and transit centers

Two unique land use issues that are important to consider with highway interchanges are:

- Interchange development pressures may conflict or even compete with downtown land uses and local economies if not comprehensively addressed.
- Interchanges behave as new entrances or gateways into a community and offer new opportunities to communities.

Section 6.5, Protect Functionality of STH 26 Interchanges, discusses in greater detail the existing, planned, and potential future interchanges along STH 26. This section explains why protecting STH 26 interchanges is important from state and local perspectives. See Table 8, Existing and Planned STH 26 Interchanges.

#### 6.1.4.1 Conflicts Between Interchange Areas and Downtown Development

Communities with new highway interchanges will likely face community-altering land use pressures and decisions that could have long-lasting implications on the community. Interchange areas often create both opportunities and challenges for land use planning efforts, in particular how it may compete/conflict with existing downtown retail/commercial area and economies.

From an economic development perspective, interchanges are often perceived as an opportunity to stimulate the local economy, due to the close proximity to a four-lane highway. Economic development opportunities are diverse and include office parks, manufacturing

plants, and retail/commercial developments. The development of new businesses, employment, and associated tax revenue is generally perceived to be of overall benefit to most communities. In many cases a new highway interchange does live up to these expectations of providing a desired economic spark to the area. History has demonstrated, however, that not all interchange development is beneficial to the impacted community.

The land use type and density at an interchange can affect the community. If an excessive amount of retail/commercially zoned land is made available (referred to as overzoning), a community can unknowingly and incrementally create a new business district that can eclipse and undermine the economic viability of the downtown through the loss of property taxes, jobs, downtown investment, civic identity, sense of place, and other impacts.

It is critical that decisions about local land use at interchanges be made as part of a community's planning process. It is important because the land use decisions will have long-term repercussions on economics, transportation, community character, and many other areas. With proactive planning, communities can objectively consider development proposals and make decisions that best suit community needs. This effort will likely require coordination between incorporated municipalities and unincorporated towns to ensure plans and decisions are mutually beneficial.

#### 6.1.4.2 Interchanges as Gateways

Newly constructed highway interchanges provide an opportunity to establish new community entrances or gateways by altering and redirecting access and traffic flow into a community.

When one approaches a community, the sequence of views from the road determines one's first impressions of a place. If a community thinks of a gateway as an entrance corridor, then gateway planning means linking this sequence of views together with common elements that give the corridor and community entrance its own identity. The most important and frequently used element is landscaping. Common landscaping techniques include a continuous row of shade trees on either side of a road, a planted median, and a landscaped buffer composed of native plant materials. Landscaping can also provide a sense of enclosure that accentuates the transition between openness of the surrounding landscape and the density of the community. Placing utilities underground, ornamental lighting, sign controls, and sidewalks or parallel paths can also contribute to the overall image of a community gateway. Other gateway themes can focus on natural or scenic features, history, civic identity, etc.

New interchanges located on bypasses pose both opportunities and challenges from a land use planning perspective. One of the greatest opportunities is the ability to reestablish the primary access in and out of the community. Often, the primary access into a community has been altered and redirected to such an extent that over time the gateway into the community must be relocated to a completely new part of the community. This offers a significant opportunity for communities to continue an existing community theme or provide the stimulus to establish a new theme.



When not given sufficient forethought, the opportunity to establish a community gateway can be undermined by an influx of billboards, big box retail, fast food restaurants, gas stations, hotels/motels, and other highway-dependent land uses typically not known for their aesthetic value. These uses tend to utilize uniform franchise designs that are not consistent with adjacent land uses or consistent with a community's gateway theme. Often, these land uses are developed with little consideration of how they fit in with the rest of the community. Once an interchange area has been developed in absence of a gateway theme, it is unlikely that a large-scale retrofit would occur after the fact. It is advisable that bypass communities with new interchange(s) proactively develop community gateway themes using the associated regulatory ordinances, aesthetic controls, and design standards before the option is precluded.



An example of the types of land use impacts brought by highway interchanges can be found on Exhibit 8, Land Use Implications of Expansion, Bypasses, and Interchanges.

#### 6.1.4.3 Interchange Development Patterns

The type of development that occurs at interchanges varies depending on the geographic location, proximity to population centers, traffic volume, and other factors. For illustrative purposes, three development scenarios are presented in this section to help communities plan and manage interchange developments. These scenarios are:

1. Rural interchange development
2. Mixed-use interchange development
3. Business/industrial park interchange development

In rural locations, the land surrounding an interchange may experience little or no development pressure. It's common for the land to continue to be used as it was prior to interchange construction. Typically the existing land use is either agriculture or in a natural condition such as a pasture, meadow, or wetland. If/when development does occur in rural areas, it is typically in one quadrant only and is either a highway-dependent business (such as a gas station) or serves local rural interests (such as an agricultural supply store). See Exhibit 9, Rural Interchange Development.

Mixed-use development occurs in higher population areas and provides a mix of land uses and services including residential, retail, and commercial businesses. Mixed-use is often convenient for consumers because it provides a wide variety of services in a clustered

location. These are typically high traffic volume businesses and that attract a lot of traffic into the interchange area. Depending on the location and site layout of the development relative to the interchange, mixed-use development may have a moderate to high impact on the interchange's functionality. See Exhibit 10, Mixed-use Interchange Development.

Business/industrial park development often occurs near interchanges because of their proximity to one or more major transportation facilities. Convenient access to a major highway provides business park tenants with an easy way to link customers and employees to their base of operations. For industrial park tenants, interchanges are an attractive location because they minimize the distance semi-trucks must travel in order to reach the highway or Interstate System. This proximity increases travel and delivery time predictability for goods and services. Locating industrial parks near interchanges can be attractive to local communities because it minimizes the amount of semi-truck traffic on local roads and locates high noise generating facilities away from residential areas. See Exhibit 11, Business/Industrial Park Interchange Development.

### **6.1.5 Tools for Understanding the Impacts of Developments Occurring as a Result of Highway Expansion, Bypasses, or Interchanges**

A number of tools exist to aid communities in understanding and controlling the land use and economic implications of development near expanded highways, bypasses, and interchanges. Below is a detailed description of Economic Impact Analysis (EIA) and Major Development Review (MDR) criteria. Additional tools are also briefly identified.

#### **6.1.5.1 Economic Impact Analysis**

Regional projects should require an economic impact analysis (EIA). A community can use an independent economic impact analysis to reject regional developments that do not pass a cost-benefit economic analysis. However, the community must add such requirements to its regulatory ordinances that outline when such a study must be completed. Studies should be underwritten by development applicants but performed by an independent consultant selected by the community. Criteria that should be included in such an analysis include the impact on local taxes including tax base, tax revenues, and property values of both the host and neighboring communities. The analysis should also require the applicant to measure the cost of “scattered development” whenever a project is not physically contiguous to an existing development.

The EIA process includes the following steps:

1. Define the market area (including both host and neighboring communities).
2. Show the distribution of existing expenditures in the market area.
3. Determine future market growth.
4. Project sales distribution without the applicant’s project.
5. Determine the applicant project’s characteristics including spin-off development impacts such as changing land use patterns, development pressures on surrounding neighborhoods, and impact to the economic health of the downtown.
6. Forecast project sales.
7. Measure market changes caused by the project such as the number of jobs that are created and lost and their impact to existing employers.
8. Forecast the increase/decrease of community tax revenues.
9. Quantify the impact of tax revenue changes on municipal services including:
  - Projected costs arising from increased demand for and required improvements of public services and utilities.
  - Projected tax revenues lost/generated by the project.
  - Projected impact of the project on surrounding land values and a potential increase/decrease in tax revenues to the community.

- Short- and long-term projection of increased/decreased community revenues resulting from the project.

#### 6.1.5.2 Major Development Review Criteria

It is unlikely that a developer will present and/or emphasize relevant data that is perceived to be harmful to the community or its economic health unless they are required to do so. All communities should have some form or comprehensive Major Development Review (MDR) criteria. A community can decide what the threshold should be for determining which projects must implement the MDR process. Again, the community must call for such a process through the adoption of a regulatory ordinances and processes.

Typical MDR criteria include:

1. A detailed description of the proposed project and its design features, including existing conditions on the site and in the vicinity.
2. Identification and assessment of the impacts of the proposed project, including positive, negative, direct, and indirect impacts. This section should include analysis such as a traffic study, impact on community utilities and services (water, sewer, storm drains, solid waste, emergency services, schools, etc.), and environmental impacts (air, surface water, wetlands, groundwater, plant and wildlife, wind, noise, etc.). Economic impacts should also be analyzed and quantified (see Economic Impact Analysis above).
3. An evaluation of how the project will meet the design standards required.
4. Proposed measures to mitigate adverse impacts and/or maximize positive impacts, including design modifications and provision of infrastructure or public service improvements sufficient to support the project. Any adverse impact that cannot be mitigated shall be identified. Mitigation measures to be implemented by the applicant shall be identified.

#### 6.1.5.3 Other Strategies

In addition to Economic Impact Analysis and Major Development Review criteria, other strategies can also be implemented to maximize the benefits to communities near expanded highways, bypasses, and interchanges. For the purposes of this report, only a brief description of these tools is provided:

- Identify the types of development that will provide the best long-term value to the community. After the planning process is complete, adopt zoning changes that support the plan.
- Create a commercial acreage/population ratio to avoid retail/commercial market over saturation.

- Limit locations of large-scale development (big box or power centers) to designated sections of the community.
- Enact a temporary building moratorium that will allow the community more to plan for such impacts.
- Develop building size standards to encourage development to expand vertically, not horizontally. Building size limitations will also ensure that developments fit within the character of the community.
- Establish architectural review guidelines that prohibit flat roof, unappealing, windowless boxes of development.



**Table 4, Understand and Plan for Land Use Impacts of STH 26 Expansion, Bypasses, and Interchanges - Strategies and Recommendations**

Strategy/Recommendation	Jurisdiction:	2004-2006	2006-2008	2008-2012	Report Reference
	<ul style="list-style-type: none"> <li>▪ State</li> <li>▪ County</li> <li>▪ Local</li> <li>▪ Collaborative</li> </ul>				
Identify community by community which of the three (expansion, bypass, interchange) STH 26 implications apply to each and address accordingly by updating a/o developing land use plans.	<ul style="list-style-type: none"> <li>▪ Local</li> <li>▪ County</li> </ul>	x	x		
Identify possibilities for “barrier effect” between neighborhoods/communities in both current and planned land uses and address accordingly.	<ul style="list-style-type: none"> <li>▪ Local</li> <li>▪ County</li> </ul>	x			
Minimize exposure of noise sensitive land uses to new bypass facilities.	<ul style="list-style-type: none"> <li>▪ Local</li> <li>▪ County</li> </ul>	x	x	x	
Create an “Interchange” section of the local land use plan, specifically targeting the unique opportunities and challenges of interchange areas.	<ul style="list-style-type: none"> <li>▪ Local</li> <li>▪ County</li> </ul>	x	x		
Update land use, zoning, and other regulatory ordinances that address the new highway interchange(s). Specific areas for scrutiny should include interchange zoning, building size, aesthetic and architectural controls, and adequate public utilities.	<ul style="list-style-type: none"> <li>▪ Local</li> <li>▪ County</li> </ul>	x	x	x	
Create an interchange zoning and/or overlay district with special land use and transportation requirements.	<ul style="list-style-type: none"> <li>▪ Local</li> <li>▪ County</li> </ul>	x	x	x	
Identify community goals to determine economic priorities and location and type of development in and around interchanges v. downtown.	<ul style="list-style-type: none"> <li>▪ Local</li> </ul>	x	x		
Define downtown growth boundaries in relationship to interchange area.	<ul style="list-style-type: none"> <li>▪ Local</li> </ul>	x	x		
Require an independent community-wide economic impact analysis for all large developments near interchange.	<ul style="list-style-type: none"> <li>▪ Local</li> </ul>	x	x	x	
Develop major development review (MDR) criteria including adverse impacts, traffic, regional economic impact, aesthetic/architectural requirements, supporting infrastructure requirements, community impacts, fiscal impacts, etc.	<ul style="list-style-type: none"> <li>▪ Local</li> </ul>	x	x	x	

**Table 4, Understand and Plan for Land Use Impacts of STH 26 Expansion, Bypasses, and Interchanges - Strategies and Recommendations, Cont'd**

Strategy/Recommendation	Jurisdiction:	2004-2006	2006-2008	2008-2012	Report Reference
	<ul style="list-style-type: none"> <li>▪ State</li> <li>▪ County</li> <li>▪ Local</li> <li>▪ Collaborative</li> </ul>				
Create a commercial acreage/population ratio to avoid market saturation and overbuilding.	<ul style="list-style-type: none"> <li>▪ Local</li> </ul>	x	x	x	
Develop gateway theme in communities with new interchange(s).	<ul style="list-style-type: none"> <li>▪ Local</li> </ul>	x	x	x	
Coordinate with local businesses during construction to minimize impacts.	<ul style="list-style-type: none"> <li>▪ Collaborative</li> </ul>	x	x	x	

## **6.2 Coordinate Local Comprehensive Planning with STH 26 Corridor Plan**

Wisconsin's most complete planning legislation in its history was included in the 1999-2001 state budget and revised in May 2000. The planning legislation, often referred to as "Smart Growth" laws, involved significant recodification to Chapter 66, Municipal Law of the Wisconsin Statutes. Under the new law, local units of government still control local planning decisions, but are now given a framework for development of a comprehensive plan.

Communities can still pursue their existing comprehensive planning efforts as "old law" plans that will remain viable until January 1, 2010. After January 1, 2010, all communities making land use decisions will be required to base those decisions on a comprehensive plan derived from the new statutory language.

There are four major sections to the comprehensive plan legislation:

- A "comprehensive plan" equates to "master plans" for cities, villages with city powers, towns with city powers, and regional planning commissions, and also to the "county development plans" for counties.
- A comprehensive plan shall contain all of the following nine elements:
  - Issues and opportunities
  - Housing
  - Transportation
  - Utilities and community facilities
  - Natural and cultural resources
  - Economic development
  - Intergovernmental cooperation
  - Land use
  - Implementation
- By January 1, 2010 all local governments' land use related actions pertaining to any ordinance, plan or regulation will need to be consistent with its adopted comprehensive plan in order to be legally defensible under state statutes.
- Communities must follow a set of procedures in the adoption of the comprehensive plan before it can take effect. These procedures ensure that a minimum level of public involvement and input is reflected in the plan.

### **6.2.1 Incorporating the STH 26 Corridor Plan**

If a community is in the process of developing or revising its comprehensive plan, it is important that the community consider the impacts of the STH 26 corridor on local goals and initiatives. STH 26 is the primary north/south corridor for regional mobility, and its impacts to land use and local transportation systems require careful consideration.

In some cases consideration of the new STH 26 corridor will require communities to revisit their previously adopted comprehensive plans. For communities just starting to develop comprehensive plans, the legislation requires that the transportation element (Wis. Stat. §66.1001(2)(c)) incorporate state corridor plans. All communities along STH 26 will receive a copy of the STH 26 Corridor Plan for reference in implementing their own local planning efforts.

Because the STH 26 corridor includes many political jurisdictions, many of the issues identified are regional in nature. Regional issues are difficult to address because no one unit of government has sole authority over them. For example, land use decisions play an important role in the circulation and function of the STH 26 corridor, yet WisDOT does not have authority to regulate land use decisions.

For these reasons, the intergovernmental coordination element (Wis. Stat. §66.1001(2)(g)) of comprehensive plans will play an important role in the implementation of the regional objectives of the STH 26 Corridor Plan. Communities are encouraged to develop commissions through cooperative agreements to identify ways to implement regional goals such as trail linkages and regional traffic circulation plans. In some cases communities are encouraged to form boundary agreements in order to ensure consistent land use decisions are made. This will ensure that they will compliment future improvements to STH 26 and to address land use/transportation issues that are of joint concern.

### **6.2.2 Inventory of Communities with Comprehensive Plans/Starting Comprehensive Plans**

Many communities located within the project study area of the STH 26 Corridor Plan already have comprehensive plans in place, or are beginning the process of developing comprehensive plans that meet the requirements the state legislation. To date, only the city of Watertown and town of Emmet have completed plans that are compliant with the state's comprehensive planning legislation. Several other communities have plans in progress or have recently received funding to initiate their comprehensive plans.

**Table 5, Coordinate Local Comprehensive Planning with STH 26 Corridor Plan - Strategies and Recommendations**

Strategy/Recommendation	Jurisdiction: ▪ State ▪ County ▪ Local ▪ Collaborative	2004-2006	2006-2008	2008-2012	Report Reference
Begin or update comprehensive plans to be consistent with state legislation.	▪ Local ▪ County	x	x		
Incorporate the STH 26 Corridor Plan into local comprehensive plans.	▪ Local ▪ County	x	x		
WisDOT to assist in incorporating the STH 26 Corridor Plan into local comprehensive plans.	▪ State	x	x		
Include plan revision strategy in the implementation element of the plan to revisit and update the plan as needed.	▪ Local ▪ County	x	x	x	

## **6.3 Employ Tools to Balance Land Use and Transportation Systems**

There are several methods a community can employ to balance the land use/transportation system. Many of these methods are well established and legally defensible. In addition, some of the methods listed below are commonly used to implement land use decisions and can also be used to influence transportation systems. The information that follows is an introduction to methods that can be used to balance land use and transportation. Communities are encouraged to identify methods appropriate to their situation and research them further.

### **6.3.1 Traffic Impact Analysis**

A Traffic Impact Analysis (TIA) is used to determine if the existing transportation network can accommodate the traffic generated from a proposed development. It is used to determine the primary traffic impacts. Secondary impacts such as land use change over time as a result of the new development are not determined as part of a TIA. These impacts are determined through the long-range planning for the area. In those cases where the transportation system cannot handle the increase in traffic, a discussion of needed transportation improvements to accommodate the new development is often included. Traffic impacts from a development can be local as well as regional in nature. Assessing these impacts before development can be a stimulus for intergovernmental cooperation or discussion.

Traffic Impact Analysis can be a useful tool in identifying potential problems in a community's transportation system that would be caused by a proposed development. The results of a TIA may also be used to levy improvement fees on developments if the development requires a transportation facility upgrade. Fees may be used to add traffic signals, turning lanes, or road expansion.

Another value of a TIA lies in its ability to be used independently of long-range planning initiatives thereby allowing the community to address specific development proposals as they are presented. TIA can be used in combination with the transportation element of a comprehensive plan to compare the proposed development's traffic generation with the planned transportation system and circulation goals.

The basic traffic impact analysis methodology is composed of five steps:

1. Land use determination
2. Trip generation
3. Directional distribution

4. Traffic assignment
5. Capacity analysis

For additional details on traffic impact analysis, see Appendix B, Traffic Impact Analysis Background

### **6.3.2 Indirect and Cumulative Impact Analysis**

WisDOT recognizes that major roadway improvements such as new interchanges and bypasses often have impacts on local communities. The immediate impact is on the land used to construct the facility. Consideration of the impacts that go beyond simply the direct effect are often referred to as indirect and cumulative impacts. WisDOT follows a designated process to evaluate indirect and cumulative impacts of proposed facilities that is documented in the Facility Development Manual (FDM 25-5-17).

Communities can use a similar approach to determine the impact of locally planned facilities and the resulting development. The Indirect and Cumulative Impact Analysis approach includes seven steps that are designed to help communities anticipate land development changes into the reasonably foreseeable future. The process helps analyze and compare land development patterns with and without the proposed highway or proposed development. With the results of the analysis, communities can decide whether the total project impacts, both direct and indirect and cumulative, are acceptable based on community goals.

As an example, a developer may propose the conversion of agricultural land to a subdivision. With the construction of the homes there may be a localized demand for retail/commercial stores. These stores will need new employees. This raises the question of where the retail/commercial employees will live. The Indirect and Cumulative Impact Analysis helps communities think through the long-term implications of a proposed project and plan accordingly.

The seven steps to this analysis are:

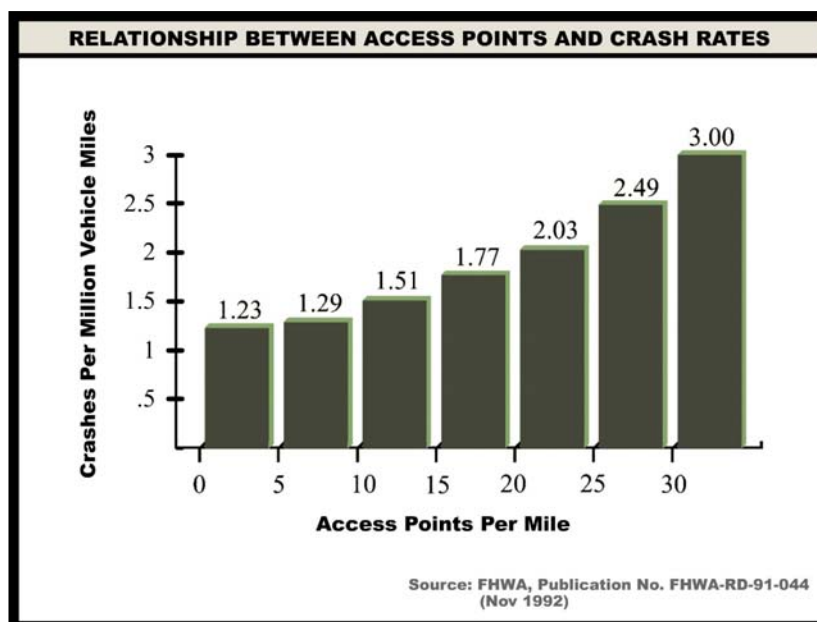
1. Definition of the project study area
2. Analysis of existing patterns and trends for land use and development
3. Analysis of the extent of land use planning and regulation
4. Understanding the type of project
5. Assessing the potential for project induced land development
6. Assessing potential consequences to the human environment

## 7. Description of tools to manage land development

### 6.3.3 Access Management

Access management can be used to preserve the mobility function of collectors and arterials (see Section 6.4, Develop Functional Roadway Classification Systems and Local Traffic Circulation Plans). Access management is planning the number and location of driveways and intersections to help maintain safe, efficient movement of traffic and to provide safer access to and from adjacent property.

The justification for access management is shown in the figure below that documents the relationship between the number of driveways located on a roadway to the number of crashes.



Local communities can work collaboratively with WisDOT in the review of development plans, in establishing local land use/access management plans for the state highway corridors, and by creating alternative access to state highways via the local road network. The common forms of access management found in the state of Wisconsin include purchase of access rights as part of new highway construction, designating controlled access highways, highway relocation, review of land divisions occurring adjacent to state highways, and access control implemented at the county level.

### 6.3.4 WisDOT Administrative Rule Trans 233

Trans 233 establishes requirements for land divisions occurring along a state highway and defines restrictions that must be followed when developing lands. WisDOT reviews all land divisions abutting a state highways for access, drainage, and setback. Any methods used to



divide land that is adjacent to the state highway must conform to the requirements.

#### **6.3.5 Wis. Stat. §84.09 – Acquisition of Lands (State)**

WisDOT may acquire by gift, purchase, or condemnation any lands needed for establishing, laying out, widening, enlarging, extending, constructing, reconstructing, or improving and maintaining highways and other transportation related facilities. Under this provision, the state can limit access to new facilities through the purchase of right-of-way to preserve the function of the facility at the time of construction. This tool can be used for state or federal highways.

#### **6.3.6 Wis. Stat. §84.25 – Controlled Access Highways (State)**

Controlled access highways are designated by WisDOT in rural areas as a means of ensuring that the mobility function of the highway is maintained. This is accomplished by regulating direct access to the highway. Existing driveways are inventoried along the access-controlled segment of the highway, and changes in access or the addition of future driveways and intersections occurs via a review and permitting process. WisDOT can enter into cooperative agreements with local communities for the financing, planning, establishment, improvement, maintenance, use, and regulation of a controlled access highway under this legislation. This tool can be used for state or federal highways.

#### **6.3.7 Wis. Stat. §83.027 – Controlled Access Highways (County)**

A county board can designate a highway under its jurisdiction as a controlled access highway for purposes of protecting public safety. Once the designation is made, the county board must approve any direct access to the highway. A county can control up to 35% of its highway miles in this way, but must have the approval of local communities before creating the designation.

#### **6.3.8 Local Access Management Policies**

There are many ways that communities can manage access locally. Appendix C, Ten Ways to Manage Roadway Access in Your Community describes in detail local access management techniques. A summary of the ten concepts follows.

1. Lay the foundation for access management in your local comprehensive plan.
2. Restrict the number of driveways per lot.
3. Locate driveways away from intersections.
4. Connect parking lots and consolidate driveways.
5. Provide residential access through neighborhood streets.

6. Increase minimum lot frontage on major roads.
7. Promote a connected street system.
8. Encourage internal access to outparcels.
9. Regulate the location, spacing, and design of driveways.
10. Coordinate with WisDOT.

### **6.3.9 Zoning and Subdivision Ordinances**

Zoning ordinances are land use controls that have been very effective in this country at the local level. They often have drawbacks in that they can be used in an exclusionary manner (though not legally), they promote single use development (though recent conventions for mixed use and overlay zoning are starting to be implemented more frequently), and their language can be restrictive in nature rather than permissive making potentially beneficial deviations in land use difficult to implement. Their source of authority (and limitations) stems from the community's rights under Wisconsin law to protect the public safety, health, morals, and general welfare.

Subdivision ordinances are gaining popularity as an effective land use control. They provide the standards that must be followed when dividing a large parcel of land into smaller parcels for development. In order to record a plat, a developer must prove that the proposed development meets the requirements of the ordinance. Subdivision ordinances address the quality of development and are often an important or sometimes the only way in which a community can ensure that proposed developments are consistent with the community's plan or goals. Because subdivision ordinances operate concurrently with zoning ordinances and have such a permanent impact on land use, a community must be careful to ensure that the subdivision ordinance is integrated with zoning and other plans, policies, and ordinances.

For an example of model zoning and subdivision ordinances that promote well-balanced land use/transportation systems see Section 6.3.20, Transportation Supportive Zoning and Subdivision Ordinances.

### **6.3.10 Impact Fees, Exactions, and Dedications - Wis. Stat. §66.55**

Local governments are increasingly exacting fees or requiring dedications of land for infrastructure improvements to meet added service and infrastructure demands generated by new developments. Impact fees collected in this manner can only be used for improvements that will be directly necessitated by the development. For example, they cannot be used for roadway maintenance, but can be used to upgrade transportation facilities. Impact fees must be held in a

separate account and must be used within a reasonable time of completion of the development or returned to the developer.

The U.S. Supreme Court has upheld that an exaction is a justifiable means of financing infrastructure as long as it meets three criteria. First, the development must create a new capital facility need. Second, the amount of fees levied against the development represent its share of the new facility needs. Finally the fees collected must be used to mitigate the impacts of the development. (*Nollan v. California Coastal Commission*, 43 U.S. 625 (1987)) See Appendix D, Model Impact Fee Ordinances.

#### **6.3.11 Moratoria on Issuance of Building Permits**

Communities can place a building moratorium to limit new construction starts (growth) for legitimate planning purposes (e.g. changes to the zoning ordinance or comprehensive plan) or if demands to infrastructure exceed the capacity to provide safe service (such as imminent failure of sewer service). These are temporary measures that should be used cautiously with strict legal limitations and serious implications for misuse if challenged. They are, however, very effective at temporarily restricting growth. (*Tahoe-Sierra Preservation Council, Inc. v. Tahoe Regional Planning Agency*, 122 S. Ct. 1465 U.S. (2002).

#### **6.3.12 Timing, Phasing, and Provision of Adequate Public Facilities**

Provision or denial of capital improvements to undeveloped parts of a community can effectively act as growth management tools. Capital improvements include basic services such as water, sewer, utilities, and roads. In some parts of the country, the courts have upheld denial of services as an acceptable method of growth control.

One way these programs are implemented is by limiting of the number of building permits that can be issued in a specific time period (usually annually). The issuance is based on a plan that demonstrates the community's ability to provide adequate public facilities over time according to some type of growth plan. Developers compete for the permits based upon a points system designed according to specific criteria. In many cases, if a developer wishes to pay for public facilities as part of the proposed development, the process can be accelerated. These programs and there variations ensure that development does not outpace the ability to provide adequate public facilities. Significant case law pertaining to these methods include: *Golden v. Ramapo Planning Board* (1972), *Construction Industry Ass'n of Sonoma County v. Petaluma* (1975), and *Dateline Builders, Inc. v. City of Santa Rosa* (1983).

### **6.3.13 Special Assessment Districts**

Communities can establish special assessment districts for the purpose of sharing costs or funding improvement projects. Improvements are made in the district to facilities such as sidewalks and water lines. The municipality making the improvement then determines what percent of the improvements serve a private landowner and what percent are for the public good. The percent of the cost is then apportioned to the landowners receiving the benefit.

One way this tool can be applied on the STH 26 corridor is to improve pedestrian facilities. In areas where developments have not included sidewalks, crosswalks, curb ramps, and pedestrian crossing signals, the communities can establish a special assessment district. The community makes the relevant improvements and apportions the improvement costs to the relevant properties owners.

### **6.3.14 TIF Districts - Wis. Stat. §66.1105 Tax Increment Law**

Communities can create special temporary districts that terminate after a specified period of time for the purpose of funding improvements in the district. Tax increment districts fix the land value for tax purposes at the time the district is created. Land value increases are taxed regularly over the life of the district, but the increment generated from increased land values are used by the community to pay off initial capital investments and improvements in the district that stimulated the increase in land value.

One potential way that TIF can be used on the STH 26 corridor is to create districts that leverage the tax increment generated by developments near interchanges and bypasses. The increment can be used to fund improvements in the existing downtown and central business district (CBD) to help maintain the economic viability of those areas. Potential TIF-funded improvements include landscaping, streetscaping, building rehabilitation, and road improvements.

### **6.3.15 Transportation Improvement Districts**

A transportation improvement district is similar to a special assessment district but differs in that two districts are established – an assessment district and a benefit district. The assessment district is typically a high-growth area and the development in the district is assessed a fee to pay for transportation improvements in the benefits district. The benefits district could cover the same area as the assessment district or it could be located in a different part of the community where the development's traffic has a direct impact on the transportation system.

A transportation improvement district could be used on the STH 26 corridor in areas with high residential growth. The residential area would be the assessment district and the benefit district would be a

predetermined area where high volumes of assessment district traffic are traveling. The funds generated from the assessment district could be used for the construction of turning lanes, traffic signals, bike lanes, or other improvements in the benefits district to improve traffic conditions.

#### **6.3.16 Intergovernmental Agreements – Wis. Stat. §66.0301**

Communities are empowered under state law to cooperate in the provision of services in order to increase the efficiency of providing that service. Communities can enter into agreements for planning purposes and between different levels of government such as school districts, sewer districts, etc. Agreements can be an effective way to influence land use and transportation. Some types of intergovernmental agreements include:

- Boundary agreements
- Establishing temporary municipal boundaries
- Corridor planning
- Ordinance enforcement (zoning, land division, building code, traffic)
- Street cleaning
- Economic development
- Transit systems
- Acquisition of parks and open space
- Mapping
- Airports

Communities should also explore intergovernmental agreements for revenue sharing. In new interchange areas, particularly on the urban/rural fringe, pressure to develop adjacent lands has the potential to cause intergovernmental competition. One way to avoid this competition is to establish intergovernmental agreements that identify mutually acceptable growth boundaries. If the boundary is ever compromised, a revenue sharing system could be used to mitigate the changes and share the tax revenue from the subsequent development.

#### **6.3.17 Extraterritorial Zoning Authority**

Cities and villages in the state are given the authority to oversee zoning decisions that occur adjacent to but outside of their political boundaries. The oversight allows the community to ensure that it will be able to provide safe and efficient services to the adjacent area if it were to be annexed to the community at a future date. It can also be an effective method for controlling leapfrog development along

arterials that could potentially create congestion and be counter to local mobility goals.

Ideally, ETZ actions are consistent with previously developed intergovernmental agreements as described in Section 6.3.16 Intergovernmental Agreements. Not all communities that exercise ETZ powers have formally established agreements with the adjacent unincorporated areas. In these situations, exercise of the ETZ power can be locally contentious. Proactive planning and communication between the affected communities can help minimize the controversy associated with the use of ETZ powers and ensure that development is compatible with long-term goals of both communities.

#### **6.3.18 Capital Improvement Plans**

A capital improvement plan (CIP) is a planning tool used in conjunction with other plans to match the costs of capital improvements with anticipated revenue. A capital improvement plan can be referred to during comprehensive planning and other activities to ensure that those planning objectives are in line with the community's spending vision.

A CIP can be used by all STH 26 communities to help manage and direct growth. The STH 26 improvements will likely cause a shift in development patterns and the CIP can help communities direct the development. The CIP clearly identifies the timing and location of improvements and this information can be used to assist in the development review process. Development proposals where infrastructure improvements are planned should be encouraged over proposals outside planned development areas. With the proper timing and adequate funding, developments will match communities' visions and goals.

#### **6.3.19 Traditional Neighborhood Developments (TND)/Mixed Use Development**

Under the comprehensive planning legislation, cities and villages within Wisconsin that have a population greater than 12,500 must have a Traditional Neighborhood Development (TND) ordinance. See Appendix E, Traditional Neighborhood Development Enabling Ordinance. As more TND style developments are constructed, it is important that an adequate transportation system be implemented to serve the needs of these developments. It will become important to understand the relationship that numerous TND's will have to trip distribution over the transportation system that has evolved to handle single use development. Communities may be faced with new transportation system challenges and will have to adapt to meet these changes.

The transportation system within a TND also varies from the transportation system of a post-World War II suburban style development. TND is based on a grid system of arterials, collectors, and local streets (see Section 6.4, Develop Functional Roadway Classification Systems and Local Traffic Circulation Plans). In TND, the purpose of arterials is to provide mobility for traffic within the development and to/from adjacent developments. The suburban style development also relies on arterials to provide the highest level of mobility but, in many cases, these arterials are bounded by strip, commercial and retail development. This development requires a large number of access points that compromise the mobility function of arterials. In contrast, TND's locate their retail and commercial districts in lower traffic areas that preserve arterial mobility and encourage alternate means of access to the retail/commercial districts (e.g. walking, biking, transit).

In mixed-use developments commercial/retail districts, office districts, and residential areas are all located in close proximity to one another. This feature allows residents to shop and work relatively close to home. With the improved proximity of key resources, community walkability is improved and the number of automobile trips decreases.

In communities where TND ordinances do not exist, the only way to legally implement mixed-use and TND site designs is through the planned unit development (PUD). A PUD is a type of overlay zoning that permits two or more uses within the same district. A master zoning plan governs the PUD and incorporates various zoning districts that could not otherwise be legally intermixed such as retail, commercial, office, and residential.

#### **6.3.20 Transportation Supportive Zoning/Subdivision Ordinances**

Zoning and subdivision ordinances can play a major role in balancing the land use/transportation relationship. This section was designed as a pullout section to be used in conjunction with the STH 26 Corridor Plan. It is a pull out section for use by local officials to compare their existing ordinances to the model ordinances. This section can also be used as an educational reference at city, village, or town board meetings as well as at planning meetings.

This section addresses the following topics:

1. Provide Balanced Transportation System and Local Circulation
2. Preserve Appropriate Future Roadway Right-of-Way
3. Promote Access Management
4. Promote Access Point Location and Spacing Standards
5. Promote Proper Roadway/Driveway Convergence Angles

6. Provide Corner Vision Triangles and Safe Intersection Access
7. Promote Functional Parking Lots and Internal Site Circulation
8. Avoid Flag Lots
9. Protect Interchange Areas

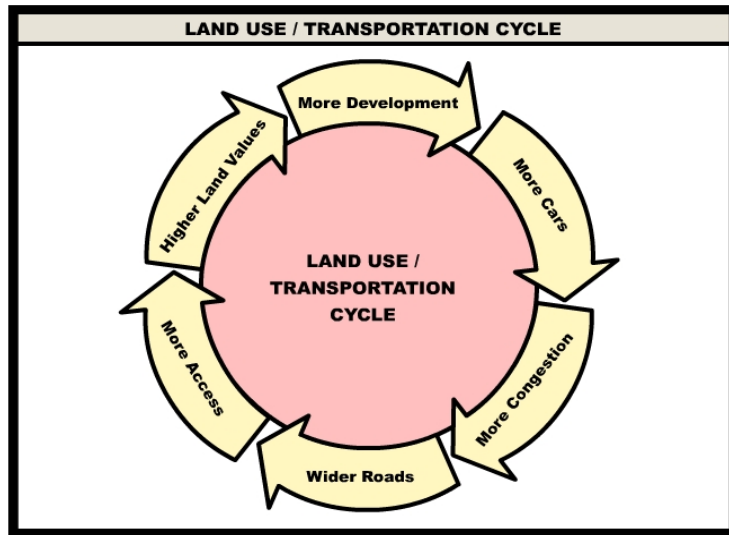


**Table 6, Employ Tools to Balance Land Use and Transportation Systems - Strategies and Recommendations**

Strategy/Recommendation	Jurisdiction: ▪ State ▪ County ▪ Local ▪ Collaborative	2004-2006	2006-2008	2008-2012	Report Reference
Update land use plans to include the new STH 26 improvements.	▪ Local ▪ County	x	x		
Understand and be able to implement TIA when approached by significant developments.	▪ Local ▪ County	x	x	x	
Establish boundary agreements in areas where certainty over land use and transportation decisions need to be established.	▪ Local	x			
Utilize cooperative agreements and/or consolidation of services where appropriate.	▪ Local ▪ County	x	x	x	
Review local ordinances to identify tools to ensure land use and transportation systems are balanced.	▪ Local ▪ County	x	x	x	
Evaluate the impact of large-scale TND development on local circulation plans and monitor development impacts.	▪ Local ▪ County			x	
Identify funding sources for both current transportation system and future needs.	▪ Collaborative	x	x	x	

## 6.4 Develop Functional Roadway Classification Systems and Local Traffic Circulation Plans

Understanding the relationship between transportation and land use is an important prerequisite to establishing a well-developed transportation system and circulation plan. The land use/transportation relationship and its relevance to planning decisions was discussed in greater detail in Section 6.1, Understand and Plan for Land Use impacts of STH 26 Expansion, Bypasses, and Interchanges.



Because of the significant relationship between transportation systems and land use activities, it is important to design a balanced transportation system that supports a variety of functions including regional mobility, area-wide circulation, and local accessibility. Local roadway connectivity and proper functionality helps establish a balanced transportation system that separates local and through traffic.

### 6.4.1 Roadway Function

A balanced transportation system is based upon a system of roadway types that serve needs ranging from access to mobility. The basic roadway facility types include arterials, collectors, and local roads, though they are sometimes broken down further such as minor/major arterials and minor/major collectors. An appropriate definition of each functional roadway class includes:

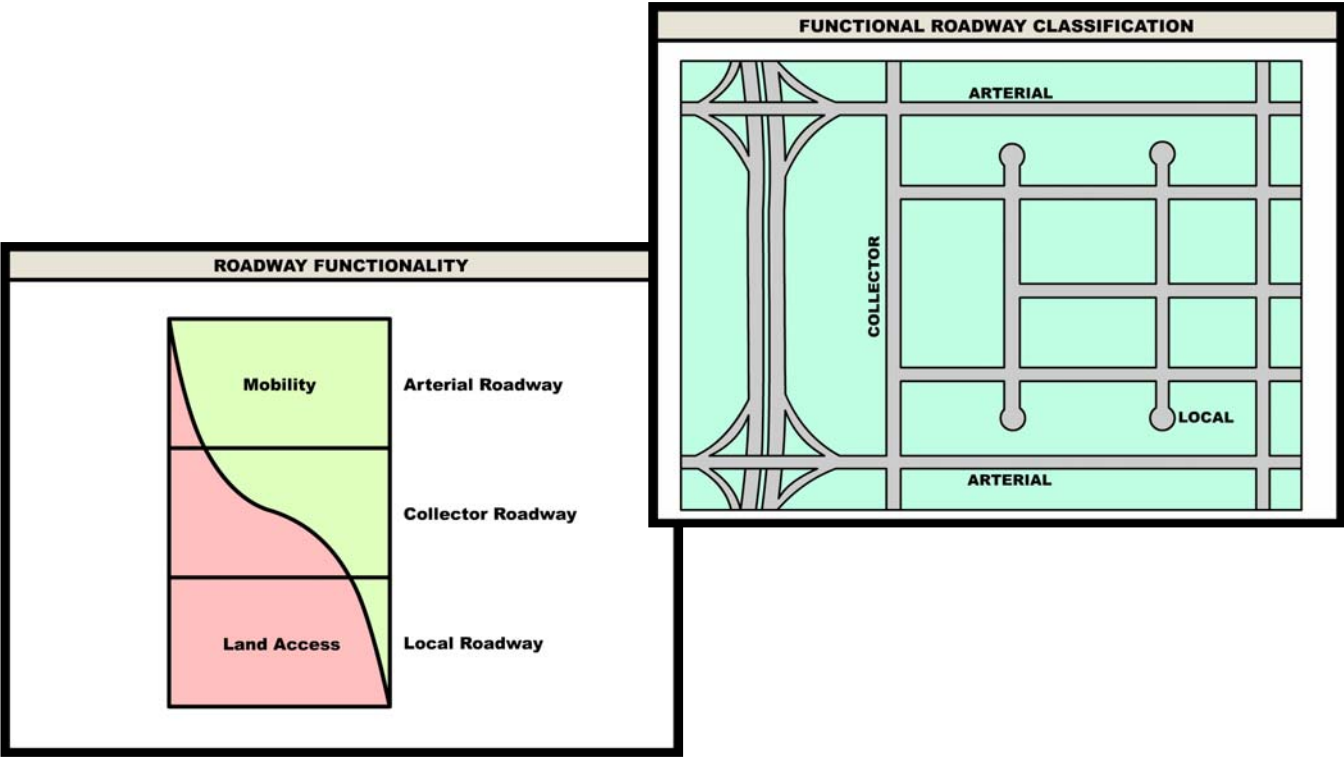
*Arterial roadways* are arranged so as to provide ready connectivity to centers of employment, government activity, community shopping, recreation, and points beyond the boundaries of the community. They should be properly integrated with and related to the existing and planned system of arterial roadways, and highways should be continuous and in alignment with existing and planned streets with

which they connect. Arterial roadways provide for the highest degree of regional mobility and least amount of access.

*Collector roadways* are arranged so as to provide ready collection of traffic from residential areas and conveyance of this traffic to the arterial roadway and highway systems and should be properly related to the arterial streets to which they connect. Collector roadways provide for some degree of mobility and limited amount of access.

*Local roadways* are arranged to conform to the topography, to discourage use by through traffic (yet still allow for local traffic circulation), to permit the design of efficient storm and sanitary sewage systems, and to require the minimum street area necessary to provide safe and convenient access to abutting property. Local roadways provide for limited mobility and a high degree of access. Though local roadways do not provide a high degree of mobility, they should be developed to allow for local traffic circulation within the area.

The figure that follows depicts the relationship of the functional roadway classes.

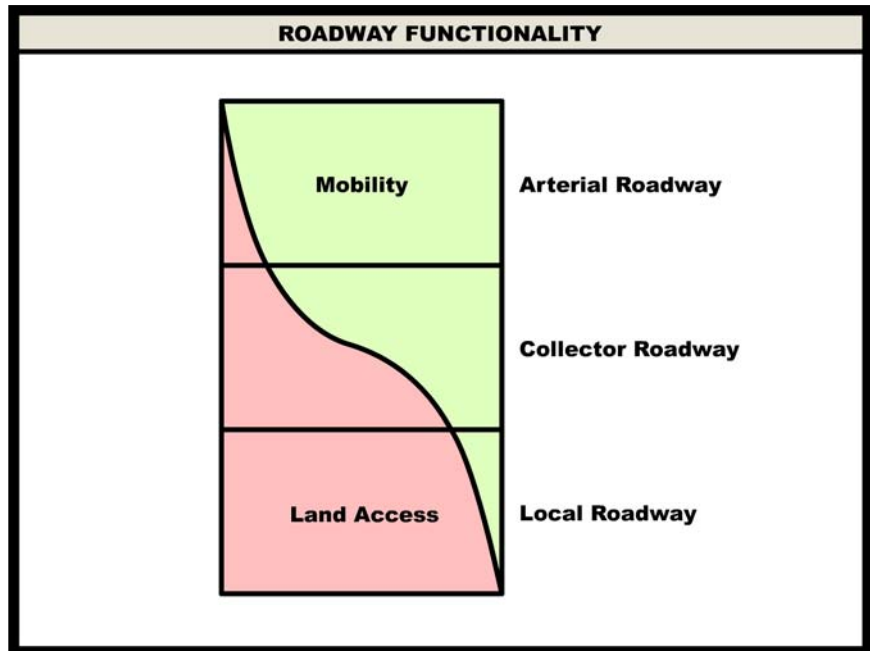


The first step in designing a balanced transportation system is establishing where roadways of a specific class will be located based upon the access/mobility role they will have in the region they serve. This requires considering future land use trends and goals in the planning and allocation of transportation facilities. For this reason, decisions about the functional roadway classification system should be made as a proactive measure during land use planning, because its success relies heavily on the ability to identify and preserve vital corridors before development occurs. It is also imperative that future land uses are adequately served by the transportation systems that support them.

The process is culminated in the design of a functional roadway classification system that if followed will adequately serve anticipated land uses, promote regional mobility, and enhance local traffic circulation. Designing a functional roadway classification system can be a first step taken as part of the comprehensive planning process that can aid in identifying the desired location and types of land uses that meet the community's goals. This can be accomplished by identifying existing transportation resources and future needs according to the vision of the community and determining the best location for arterials, collectors, and local roads. The function of each roadway type has an impact on the design speed, cross section, and alignment of the facility. Each of these factors in turn compliment differing land uses.

#### **6.4.2 Mobility v. Access**

As defined earlier, a functional roadway classification system is composed of a hierarchy of roadway types that serve needs ranging from access to mobility. The roadway types consist of arterials, collectors, and local roads. In a balanced transportation system, a network of roadways is created where arterials primarily provide mobility, collectors provide both mobility and access, and local roads provide local access. The following figure depicts the access/mobility role that each roadway class supports.



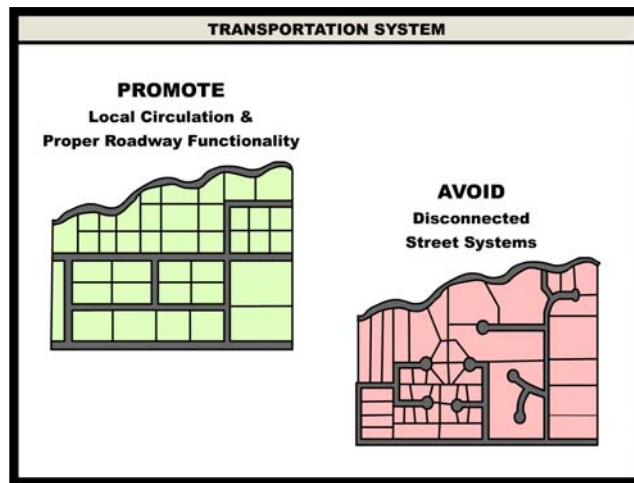
As shown in the figure, when the roadway type rises on the hierarchy scale, the amount of access it provides decreases, and the amount of mobility it provides increases. Another important component of the hierarchy involves the connection of roadway types in the system. Whenever possible, local roads connect to other local roads and collectors, collectors are the transition between local roads and arterials, and arterials connect to other arterials and collectors. Maintaining this structure in development of the functional roadway classification is important to ensure the successful development of a transportation system.

#### 6.4.3 Local Traffic Circulation

Another key component in the development of a functional roadway classification system is to identify future corridors that promote local circulation through connectivity. A connected roadway system is an important component of a balanced transportation system. The importance of connectivity to mobility may be apparent at the regional scale (freeways, expressways, and arterial routes). However, its importance to vehicle circulation and navigation for local roads is often overlooked.

As shown in the following figure, a connected local road system provides alternate routes for drivers accessing differing land uses and aids in way-finding. A very important benefit of a connected local road network is a reduction of short trips competing with regional trips on the arterial roadway system. This is important in maintaining low congestion and a higher level of service throughout the life of the

arterial facility. Careful placement of the collector system combined with connectivity on the local street system will enhance local circulation and limit “trail blazing” behavior through residential areas.



The functional roadway classification system can help in the design of a balanced transportation system and ensure that traffic needs complement rather than direct land use growth in the community. Balanced transportation systems have the following components:

- Local roads and collectors provide majority of local access in the system.
- A connected local road system integrated with a sufficient collector system.
- Multiple, parallel arterials and collectors providing alternate regional travel options.
- Minimal (none preferred) number of private driveways and local roads accessing arterials.
- Limited and longer distances between access points on arterials.
- Managed access on the collector and arterial system with primary access allowed via roadway intersections rather than private driveways.

When a community develops a functional roadway classification system it should consider what its future access and mobility needs will be. When used in conjunction with land use planning, origin/destination studies, and traffic modeling, a community can identify where resources exist and where gaps in the transportation network need to be addressed. Communities can use the county as a resource in developing a local transportation system that ties into a regional system. Communities should also work together to agree on and preserve a regional functional roadway classification system. The

state's legal framework allows great flexibility for communities to work collaboratively in planning, development, and maintenance of transportation systems through cooperative agreements (see Exhibit 12, Functional Roadway Classification).

#### **6.4.4 Implementing Functional Roadway Classification Systems**

Once a community has developed and mapped a functional roadway classification system, it must ensure that it is supported by future land use decisions. Two important tools that help to realize implementation include the comprehensive plan and the official map.

##### **6.4.4.1 Comprehensive Plan**

Wisconsin's comprehensive planning law mandate that all communities making land use decisions need to ensure that those decisions are consistent with the comprehensive plan after January 1, 2010 to be legally defensible under Wis. Stat. §66.1001(3). The new definition of a comprehensive plan includes master plans as well as county development plans. For a more detailed discussion of the components of a comprehensive plan under the new state legislation see Section 6.2, Coordinate Local Comprehensive Planning with STH 26 Corridor Plan.

The transportation element of the comprehensive plan should contain the functional roadway classification system or traffic circulation plan under the jurisdiction of the community. If the comprehensive plan follows Wis. Stat. §66.1001(2)(c), it should also consider the county functional roadway classification system and the state regional transportation plan. Adopted comprehensive plans must be consistent with state and county plans. If a regional functional roadway classification system was designed through intergovernmental agreements, a regional system exhibit could also be included in the comprehensive plan.

##### **6.4.4.2 Official Map**

Cities, villages, and towns with village powers can adopt official maps by ordinance or resolution through the enabling legislation granted by Wis. Stat. §62.23(6)(b). The official map can include the extraterritorial jurisdiction of the community as well. Information depicted on the maps can include existing and planned future roads, historic districts, parkways, parks, railroad right-of-way and public transit facilities. The official map is an important tool in preserving future transportation facilities because no building can be constructed or expanded within the limits of the features depicted on the map (with some exceptions). See Appendix F, Model Official Map Ordinance.

Counties can adopt official maps depicting existing and planned highway widths, planned roadway and highway expansions, and future platting of lands within the unincorporated portions of the county. These maps must be approved by the community impacted, and exclude lands under the extraterritorial jurisdiction of a city or village unless consent is given by those units of government.



The important aspect of the official map that relates to the functional roadway classification system is depicting an adequate right-of-way width to meet the needs of the desired roadway class. It is important to note that there is no set standard in the design of arterials and collectors, and there is a great range of flexibility once the facility type is chosen.

Communities may wish to plan and officially map future road systems that tie into the existing system of arterials, collectors, and local streets. If the land needed for the future roads is outside its municipal limits, the planning community should coordinate with outlying communities regarding the future road systems.

Communities should also review existing ordinances pertaining to building setback during the official mapping process to determine appropriate distances of structures from future roadway centerlines. Setbacks are important in addition to the official map for the preservation of future corridors.

The exhibits that follow are demonstrative typical sections for different functional roadway classifications in both urban and rural environments with a variety of multi-modal options and provide a general sense of right-of-way widths for each facility type.

#### **6.4.5 Specific strategies and recommendations**

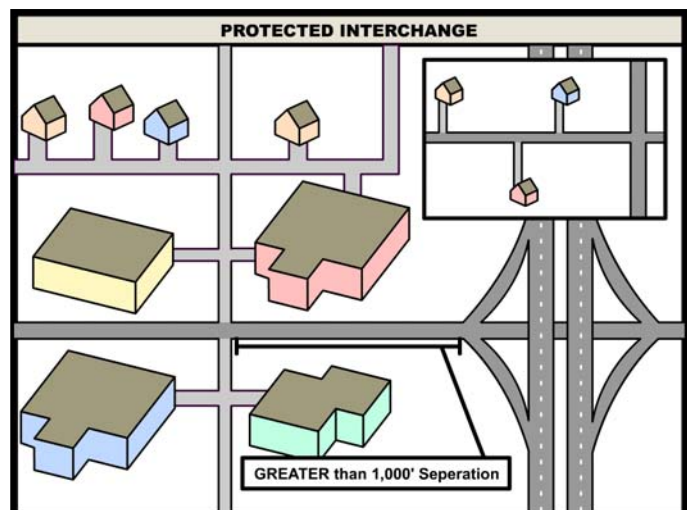
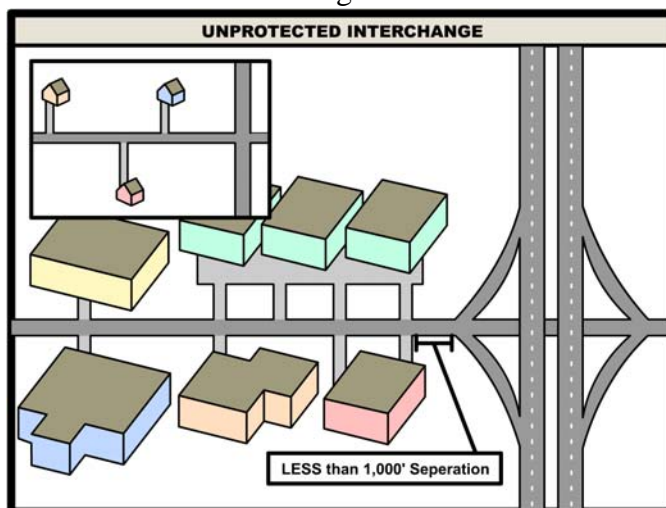
Specific corridor-wide strategies and recommendations for communities along STH 26 are designed to help ensure a regional balanced transportation system is put into place that supports the mobility function of STH 26, promotes local traffic circulation, and balances transportation/land use needs. The Corridor Plan recommends that the following strategies be followed by local units of government along the STH 26 corridor to meet this objective (see Table 7, Develop Functional Roadway Classification Systems and Local Traffic Circulation Plans Strategies and Recommendations).

**Table 7, Develop Functional Roadway Classification Systems and Local Traffic Circulation Plans - Strategies and Recommendations**

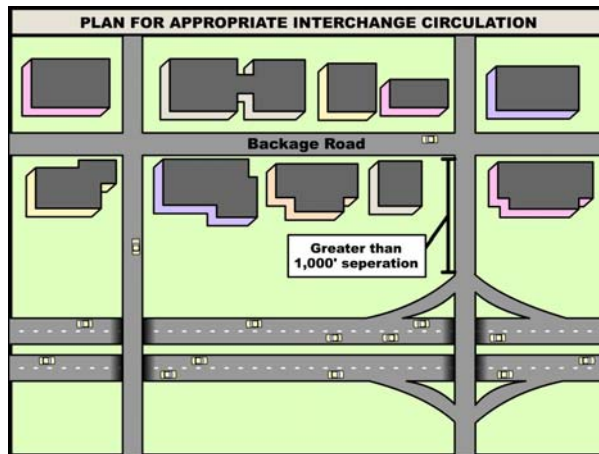
Strategy/Recommendation	Jurisdiction: ▪ State ▪ County ▪ Local ▪ Collaborative	2004-2006	2006-2008	2008-2012	Report Reference
Develop and/or reevaluate local functional roadway classification and local circulation plans to consider the new STH 26 improvements.	<ul style="list-style-type: none"> <li>▪ Local</li> <li>▪ County</li> </ul>	x	x		
Communities should work collaboratively to identify a regional functional roadway classification system.	<ul style="list-style-type: none"> <li>▪ Collaborative</li> </ul>	x	x		
Implement official maps or update plans to reflect changes in the functional roadway classification.	<ul style="list-style-type: none"> <li>▪ Local</li> <li>▪ County</li> </ul>	x	x		
Identify areas where intergovernmental agreements would be appropriate in implementation and maintenance of the transportation system.	<ul style="list-style-type: none"> <li>▪ Collaborative</li> </ul>	x	x	x	
Implement access management, preserving right-of-way, and establishing setbacks to preserve important corridors.	<ul style="list-style-type: none"> <li>▪ Local</li> <li>▪ County</li> </ul>	x	x	x	

## 6.5 Protect Functionality of STH 26 Interchanges

As discussed in Section 6.1, Understand and Plan for Land Use Impacts of STH 26 Expansion, Bypasses, and Interchanges, land use changes can be rapid and intensive near interchange areas. If local governments approve development in interchange areas without the necessary plans or regulations to manage access outcomes, the result is a proliferation of accesses near interchange ramps. In addition, major local roadway intersections are often located too close to the interchange ramp termini. A variety of transportation problems occur when access points and intersections are too close to interchange ramps. Signalized intersections too close to ramp termini can cause large volumes of weaving traffic, poor signal timing and operation, crashes, congestion, and traffic queues on the ramps that back up into the highway mainline. Access points and median openings near the ramp termini further compound this situation. Too many choices in close proximity create confusion, causing driver expectancy violations and erratic movements, resulting in unsafe speed differentials between turning vehicles and other traffic.



Interchange areas must also provide local traffic circulation to accommodate short trips destined between adjacent land uses. Land use development should occur so that traffic circulation opportunities are provided and that the highway is not serving local trips. Interchange traffic circulation can be preserved by implementing joint access, cross access, on-site circulation, and frontage, backage, or service roads, all of which can increase the safety, efficiency, and operations of the interchange area. For additional information on adopting a local cross access ordinance see Appendix G, Model Cross-access Agreement.



When not properly managed, interchange areas can also negatively affect the economic viability of the surrounding land use and compromise the interchange safety, function, and operation. If traffic problems become too great the result may be the need for expensive retrofit projects. If an interchange does not function efficiently, it can have spill over effects into the adjacent community, both from an economic perspective but also from a “sense of place” or first impression perspective as well.

Within the project study area, the existing STH 26 corridor includes nine interchanges with plans to add additional interchanges as part of the STH 26 EIS project. In all, there are a total of twenty-one interchanges that could potentially exist on the STH 26 corridor over approximately the next 15 years (see Table 8, Existing and Planned STH 26 Interchanges).

An example of a newly planned interchange and some of the challenges involved are shown in Exhibit 14, Interchange Protection.

<b>Table 8, Existing and Planned STH 26 Interchanges</b>		
<b>STH 26 Interchange</b>	<b>Status</b>	<b>General Location</b>
I-39/90	Existing	City of Janesville/Town of Harmony
Milton/Janesville	Coordination in Progress	Between Milton/Janesville
STH 59	Proposed	City of Milton/Town of Milton
CTH N	Proposed	Town of Milton
Pond Road area (jug-handle)	Long-term Possibility	Town of Koshkonong
Business 26 South	Existing	City of Fort Atkinson/Town of Koshkonong
STH 106	Existing	City of Fort Atkinson/Town of Koshkonong
USH 12	Existing	City of Fort Atkinson/Town of Koshkonong
Business 26 North	Existing	City of Fort Atkinson/Town of Jefferson
STH 89	Proposed	City of Jefferson/Town of Jefferson
USH 18	Proposed	City of Jefferson/Town of Jefferson
Junction Road	Proposed	City of Jefferson/Town of Aztalan
CTH B	Long-term Possibility	Village of Johnson Creek/Town of Farmington
I-94	Existing	Village of Johnson Creek/Town of Farmington
CTH Y	Proposed	City of Watertown/Town of Watertown
STH 19	Proposed	City of Watertown/Town of Watertown/Town of Emmet
STH 16	Existing/Proposed Redesign	City of Watertown/Town of Emmet
Business 26/STH 16	Proposed	City of Watertown/Town of Emmet
STH 16/STH 26/STH 60	Existing	Town of Clyman
CTH J (jug-handle)	Long-term Possibility	Village of Clyman/Town of Clyman
USH 151	Existing	City of Waupun/Town of Chester/Town of Waupun

### 6.5.1 Interchange Protection and Intergovernmental Coordination

The planned STH 26 improvements include several new interchanges in rural areas. Constructing new interchanges presents unique

challenges and opportunities for nearby communities as discussed in Section 6.1, Understand and Plan for Land Use Impacts of STH 26 Expansion, Bypasses, and Interchanges. Coordination between unincorporated communities and nearby incorporated communities will become more important as land use pressures change. By anticipating development pressures and working cooperatively between governments, future boundary disputes and differences in development expectations can be avoided.

Of the interchanges identified in Table 8, Existing and Planned STH 26 Interchanges, over half of the identified interchanges are new and in rural settings. EIS proposed interchange locations and potentially impacted communities are as follows:

- STH 59 (city of Milton/town of Milton)
- CTH N (town of Milton)
- STH 89 (city of Jefferson/town of Jefferson)
- USH 18 (city of Jefferson/town of Jefferson)
- Junction Road (city of Jefferson/town of Aztalan)
- CTH Y (city of Watertown/town of Watertown)
- STH 19 (city of Watertown/town of Watertown/town of Emmet)
- Business 26/STH 16 (city of Watertown/town of Emmet)
- STH 16/STH 26/STH 60 – reconfiguration (town of Clyman)

Write up something on ultra long-range planning for these status unknown interchanges if we decide to keep them.....

Even before the new STH 26 interchanges are constructed it is essential that these areas be proactively protected and preserved through a coordinated intergovernmental approach between local, county, and state governments. Interchange preservation can be implemented in various ways by implementing the following strategies and recommendations.

**Table 9, Protect Functionality of STH 26 Interchanges - Strategies and Recommendations**

Strategy/Recommendation	Jurisdiction:	2004-2006	2006-2008	2008-2012	Report Reference
	<ul style="list-style-type: none"> <li>▪ State</li> <li>▪ County</li> <li>▪ Local</li> <li>▪ Collaborative</li> </ul>				
Undertake an intergovernmental planning effort for all land use and site plan decisions within 1/2 mile of the interchange. Conduct annual coordination meetings to assess overall interchange plan.	<ul style="list-style-type: none"> <li>▪ Collaborative</li> </ul>	x	x		
Create and “Interchange” section of the local land use plan, specifically targeting the unique opportunities and challenges of interchange areas.	<ul style="list-style-type: none"> <li>▪ Local</li> </ul>	x	x	x	
Create an interchange zoning and/or overlay district with special land use and transportation requirements.	<ul style="list-style-type: none"> <li>▪ Local</li> <li>▪ County</li> </ul>	x	x	x	
Update land use, zoning, and other regulatory ordinances that address the new highway interchange(s).	<ul style="list-style-type: none"> <li>▪ Local</li> <li>▪ County</li> </ul>	x	x	x	
Develop an access management and traffic circulation plan for the interchange areas (1/2 mile radius) based on comprehensive plan.	<ul style="list-style-type: none"> <li>▪ Collaborative</li> </ul>	x	x	x	
Provide for interchange traffic circulation via shared access, cross access, on-site circulation, and backage roads to reduce the amount of trips within the interchange area.	<ul style="list-style-type: none"> <li>▪ Collaborative</li> </ul>	x	x	x	
Access separation from the interchange ramps of at least 1,000 feet.	<ul style="list-style-type: none"> <li>▪ Collaborative</li> </ul>	x	x	x	
Consider the need for special signage and billboard regulations near interchange areas to avoid visual clutter and driver confusion.	<ul style="list-style-type: none"> <li>▪ Local</li> <li>▪ County</li> </ul>	x	x		
Plan for the incorporation of pedestrian and/or bicycle facilities through the interchange area.	<ul style="list-style-type: none"> <li>▪ Collaborative</li> </ul>	x	x	x	



## **6.6 Manage STH 26 Expressway Sections Over Time**

The EIS improvements planned for STH 26 will convert much of the facility from an expressway to a freeway. The distinction is important because expressways have at-grade intersections and freeways do not. The only access to freeways is at interchanges. Freeways create safer and more efficient travel conditions with the location of access to/from the facility more pronounced and predictable. Ultimately, most of STH 26 from I-90 to STH 60 will be converted to a freeway as part of the EIS improvements but complete conversion is not likely to occur for 20 years or longer.

In densely developed areas and near urbanized areas, the conversion is likely to take place sooner. In rural areas of the STH 26 corridor, the conversion is not likely to happen for many years offering local communities needed time to plan for the change. As land develops at or near existing at-grade intersections, WisDOT will consider grade-separating the intersecting roads to avoid interruptions to the STH 26 mainline in the long-term. If safety problems occur, the short-term solution will be to close median. The grade-separation could be an interchange but the more likely action would be to construct an overpass or underpass.

### **6.6.1 Overpass, Underpass, or Interchange?**

The decision to construct a new interchange is dependent on the proximity of the intersection to existing or planned interchanges, existing and planned land use, and whether the intersecting road provides regional connectivity.

An overpass or underpass is advantageous from WisDOT's perspective because they do not compromise the mobility function of STH 26, they are significantly cheaper to build than an interchange, and they accommodate local traffic circulation.

Developers, landowners, and/or communities may perceive current at-grade intersections to be attractive locations for development. While this may be true in the short-term, in the long-term communities should consider what impact a conversion to a grade-separated crossing would have on development. Before approving a development, communities should consider what the long-term impacts of removing access to STH 26 would be on the proposed development.

### **6.6.2 Questions to Think About When Considering Development**

If a community chooses to develop land near an existing at-grade intersection there are two key questions to consider:

- Is the proposed development highway-dependent?

- Do local traffic circulation opportunities exist to minimize the impacts of the loss of direct access to STH 26?

Highway-dependent development relies on regional traffic to provide its customer base. Examples of highway-dependent development include fast-food restaurants, gas stations, and convenience stores. Highway non-dependent development relies on the local population for its customer base. Typically, this type of development is a “destination” for consumers, not a spur-of-the-moment decision to stop, as is the case with highway-dependent development. Examples of highway non-dependent development include movie rental stores, automobile parts stores, and grocery stores.

Typically developers of highway-dependent businesses seek out opportunities to develop near at-grade intersections with high traffic volumes. At-grade intersections typically provide convenient access, a high visibility location, and the ability to capture traffic traveling in four directions. While these conditions are beneficial to the developer, they can compromise the function of STH 26. High levels of entering/exiting traffic disrupt the flow of traffic on STH 26, a situation WisDOT wants to avoid.

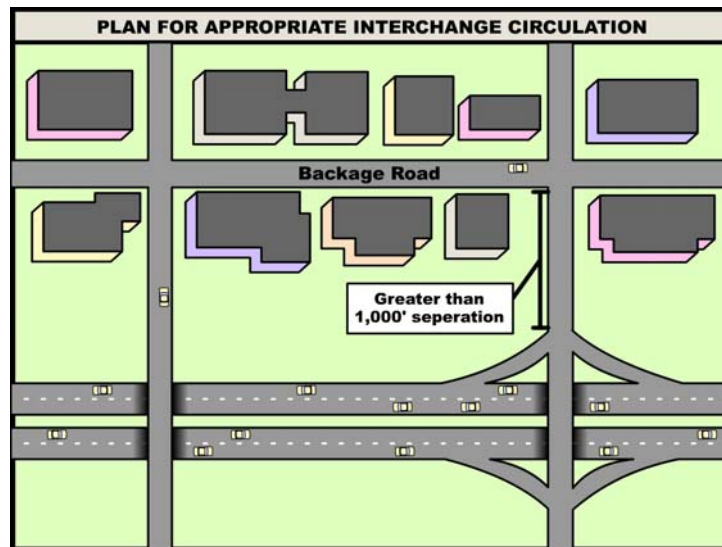
Highway-dependent development can cause safety problems for several reasons. When compared to highway non-dependent development, highway-dependent development relies on a greater number of exiting and entering vehicles for its customer base. The exiting and entering vehicles impede the flow of traffic on STH 26 causing delay and an increased possibility of crashes. Additionally, highway-dependent traffic may experience difficulties crossing STH 26 and/or merging with traffic. When this occurs, drivers often become frustrated and engage in high-risk driving.

WisDOT realizes the development potential of the at-grade intersections and has established a long-term policy regarding their development. In the rural, low traffic expressway sections of the STH 26 corridor, WisDOT plans leave the at-grade intersections as is for the next 10-15 years, provided high traffic volume development does not locate near the intersections. If highway-dependent development does occur near the at-grade intersections, WisDOT will in most instances, close direct access to STH 26 by constructing an underpass, overpass, or by eliminating side road access to STH 26. This WisDOT policy highlights the need for local governments to consider how well their local traffic circulation system can accommodate development traffic if direct access to STH 26 is removed.

### **6.6.3 Importance of the Local Traffic Circulation System**

Regardless of the type of development, an efficient local traffic circulation system will be an important factor in the long-term success of any development. A local traffic circulation system should provide

efficient traffic flow between nearby developments, connections from the development to local population centers, and a link to the nearest STH 26 interchange. One development technique that municipalities can use to provide property access and traffic circulation is the backage road. Unlike frontage roads, backage roads provide double-frontage – meaning that development can be situated on both sides of the road. This increases development opportunities and maximizes the community’s return on their infrastructure investment.



Communities should also consider the location of the backage road relative to the existing at-grade intersection. Through coordination meetings with WisDOT, municipalities will be able to determine what kind of grade-separation will be likely at the intersection and space the backage road accordingly. If an interchange is going to be constructed, 1,000’ spacing is recommended. If an overpass or underpass is constructed spacing could be reduced to 500’. Communities can use several planning tools to preserve right-of-way around at-grade intersections (Section 6.1, Understand and Plan for Land Use Impacts of STH 26 Expansion, Bypasses, and Interchanges).

#### 6.6.4 Importance of Access Management

As developments are planned and implemented, communities should formulate an access management strategy. The number of access points on any road type, from arterial like STH 26 to the local street level, has a distinct impact on traffic flow. On roads that are designed to provide mobility, the number of access points should be minimized. Some of the basic principles of access management include:

- Access consolidation
- Access relocation to lower class roadway

- Development of internal roadway systems
- Access removal
- Proper access spacing

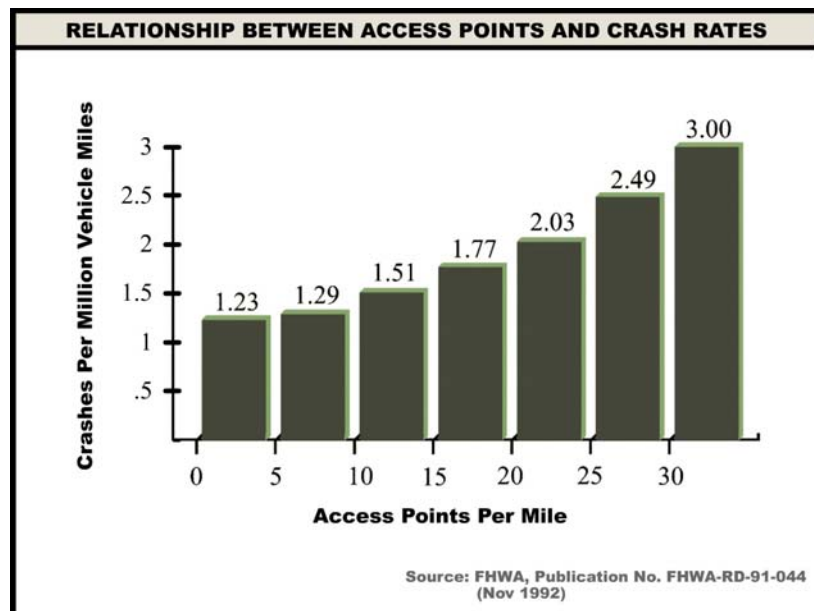
More details on access management can be found in Section 6.3.3, Access Management.

Two examples of the need for local developments to adapt to freeway conditions can be found between the village of Johnson Creek and city of Watertown (see Exhibit 15, Access Management). As the exhibit shows, local road connections between Baneck Lane and Emerald Drive are recommended. The village of Johnson Creek land use plan shows residential development extending to Spruce Drive. When development pressures intensify in this area, it's likely that direct access to STH 26 will be eliminated. A grade-separated crossing of STH 26 at Emerald Drive may be part of the access change. The road connections as shown will provide local circulation and development opportunities without compromising the function of STH 26.

On the northern part of Exhibit 15, Access Management, a similar condition exists, with potential development pressure originating at the southern end of the city of Watertown. In this case however, High Road and Airport Road can function as local connecting roads. It will be important that any development near the STH 26/Ebenezer Road intersection be situated to accommodate a potential grade-separated crossing of STH 26. Additionally, development should be situated to permit the possible future extension of High Road and Airport Road south of Ebenezer Road.

#### 6.6.5 Safety Concerns on the Expressway Section of STH 26

One of the distinct advantages of freeways when compared to expressways is the enhanced safety they provide. By limiting access to the freeway at interchanges, the total number of conflict points is greatly reduced. On an expressway, there are eight conflict points for the through movement. On a freeway there are only two conflict points for the through movement (merge/diverge on the ramps). Just as driveways can have a deleterious impact on safety and mobility, intersections have the same effect. See Section 6.3.3, Access Management, for additional details on access management and techniques.



An intersection crash analysis was conducted for the northern segment of STH 26 for each of the intersections between STH 16/Provimi Road and USH 151. Table 10, STH 26 Intersection Crashes, 1997-2001 summarizes the intersection crash rate for each of the intersections on this segment. As the table indicates, the intersection with the highest crash rate was STH 26/CTH E with 1.29 crashes per million entering vehicles. The WisDOT intersection crash rate threshold for consideration of safety improvements is 2.0 crashes per million entering vehicles. Based on the crash analysis, none of the

intersections on this segment of STH 26 were determined to warrant further examination at this time.

During the STH 26 Corridor Plan process, the public and local officials familiar with the northern segment and its crash history expressed concern about the frequency and severity of crashes at the STH 26/CTH E intersection. The crash analysis does not indicate an unusually high crash rate but Dodge County and WisDOT may want to consider further analysis of the intersection. The total number of crashes for all analyzed intersections can be found in Exhibit 16, Histogram of STH 26 Crashes, 1997-2001.

**Table 10, STH 26 Intersection Crashes, 1997-2001**  
(crashes within 1/10 mile of intersection)

Rank	Intersection	Severity	Crash Type						Total Crashes	Volume (MV)	Crash Rate (per MV)
			Angle	Head On	Single Vehicle	Rear End	Sideswipe Opp. Dir.	Sideswipe Same Dir.			
1	County E	Fatal								14.0	1.29
		Injury	8	1					9		
		Prop. Dmg.	6		1	1		1	9		
		Total	14	1	1	1		1	18		
2	Prospect Road	Fatal								8.9	1.23
		Injury	6						6		
		Prop. Dmg.	4		1				5		
		Total	10		1				11		
3	County I	Fatal								7.9	0.76
		Injury	1		2		1		4		
		Prop. Dmg.			2				2		
		Total	1		4		1		6		
4	Highway 33	Fatal	1						1	17.6	0.74
		Injury					1		1		
		Prop. Dmg.	4		3	3		1	11		
		Total	5		3	3	1	1	13		
5	County J	Fatal		1					1	16.3	0.73
		Injury	1			1			2		
		Prop. Dmg.	4		3	1	1		9		
		Total	5	1	3	2	1		12		

Rank	Intersection	Severity	Crash Type						Total Crashes	Volume (MV)	Crash Rate (per MV)
			Angle	Head On	Single Vehicle	Rear End	Sideswipe Opp. Dir.	Sideswipe Same Dir.			
6	County A	Fatal									
		Injury	1		1				2	9.9	0.51
		Prop. Dmg.			1	1		1	3		
		Total	1		2	1		1	5		
7	Highway 60 S / 16 N	Fatal									
		Injury	1						1	18.5	0.49
		Prop. Dmg.	2		5	1			8		
		Total	3		5	1			9		
8	Highway 16 S / Provimi Road	Fatal									
		Injury	2	1	3	1		1	8	24.8	0.44
		Prop. Dmg.			2			1	3		
		Total	2	1	5	1		2	11		
9	Center Street (Juneau)	Fatal									
		Injury						1	1	20.5	0.34
		Prop. Dmg.				2	1	3	6		
		Total				2	1	4	7		
10	Oak Grove	Fatal									
		Injury								18.1	0.28
		Prop. Dmg.						5	5		
		Total						5	5		
11	Highway 151	Fatal									
		Injury	4		1				5	31.4	0.19
		Prop. Dmg.				1			1		
		Total	4		1	1			6		



The table that follows summarizes some specific strategies that local governments can use to minimize the local impacts of the freeway conversion process and improve safety on the expressway section of STH 26.

<b>Table 11, Manage STH 26 Expressway Sections Over Time - Strategies and Recommendations</b>					
<b>Strategy/Recommendation</b>	<b>Jurisdiction:</b> ▪ <b>State</b> ▪ <b>County</b> ▪ <b>Local</b> ▪ <b>Collaborative</b>	<b>2004-2006</b>	<b>2006-2008</b>	<b>2008-2012</b>	<b>Report Reference</b>
Consider appropriate land uses for land near at-grade intersections and amend comprehensive plans as needed.	▪ Local	x	x	x	
Based on planned development areas, work with WisDOT to identify long-term STH 26 plans.	▪ Collaborative	x	x	x	
Amend zoning code and maps as needed to reflect changes in comprehensive plan.	▪ Local	x			
Develop and implement access management strategies.	▪ Collaborative	x	x	x	
Monitor the STH 26/CTH E intersection for future safety problems.	▪ Local ▪ County	x	x	x	

## **6.7 Address Long-term Needs of STH 26 North of STH 60**

Throughout the public involvement process of the STH 26 Corridor Plan, the public and local officials have expressed a high level of interest in the segment of STH 26 north of STH 60 (where the EIS improvements terminate). This northern segment is relatively rural and traffic drops off precipitously north of STH 60. In 1998, average annual daily traffic (AADT) south of STH 60 was 8,100 and north of STH 60 it was 3,100. Interest in this segment is especially keen in the area around the city of Juneau. The existing STH 26 alignment runs through the city. With all of the other regional STH 26 improvements, including bypasses of the cities of Fort Atkinson, Jefferson, Milton, and Watertown the populace is interested in what the plans are for this segment.

The Dodge County Land Use Plan shows STH 26 rerouted to CTH A south of the city of Juneau. This alignment provides a bypass of the city and a more direct connection to USH 151. Many people are aware of the locally planned change but no formal discussions regarding a jurisdictional transfer have occurred between the WisDOT and the affected municipalities and/or general public.

### **6.7.1 Form a Local Committee**

To address the local concerns about the future of STH 26 north of STH 60, the formation of a local STH 26 committee is recommended. The purpose of this committee would be as follows:

- Identify an agency to lead the planning process.
- Organize regionally affected municipalities in a series of discussions about STH 26.
- Determine whether a new STH 26 alignment bypassing the city of Juneau is needed.
- Develop a range of alternative STH 26 routes that would meet the region's needs.
- Consider the influence of local constraints such as airport zoning and possible expansion, local economic conditions, and community impacts.
- Consult with WisDOT and WDNR regarding potential alternatives.
- Consider National Environmental Policy Act (NEPA) requirements for all possible alternatives.
- Understand the Transportation Projects Commission (TPC) process and consider when a request to create a project would be considered favorably.
- Officially Map the locally preferred STH 26 corridor.

#### 6.7.1.1 Importance of NEPA

The logical lead agency for this committee is either Dodge County Planning and Development or the Dodge County Highway Department. The agency which steps forward to organize the committee needs to have a clear understanding of NEPA and the TPC.

NEPA requires a thorough environmental, cultural, and socio-economic impact analysis for any project that uses federal money. Rerouting STH 26 would undoubtedly require a NEPA assessment (EIS). As the committee considers their needs and possible alternatives, they should consider the following resources as they will be included in the environmental impact analyses:

- Wetlands
- Endangered species habitat
- Minority and low income population
- Stream and river crossings
- Historic sites
- Archeological sites
- Hazardous materials sites
- Agricultural land
- Land Use

#### 6.7.1.2 Importance of the Transportation Projects Commission (TPC)

The lead agency should also have a strong understanding of the TPC as future improvements to the northern STH 26 corridor will likely fall within their jurisdiction. The TPC's role is to evaluate and recommend projects to the governor and legislature for both study and construction authorization. The TPC consists of 15 members: the governor, three citizen members appointed by the governor, five senators and five representatives appointed by the legislature, and the WisDOT Secretary as a non-voting member.

Hearings are held in the fall by the TPC to receive public comment on the candidate projects. In late fall, the TPC then sends a list of their recommendations of major highway projects and appropriate funding levels to the governor and the legislature.

The governor incorporates the recommendations into the budget and the budget is passed by the legislature in July of the following year.

In late 2002, the TPC recommended that no new projects be enumerated for construction based on the current funding commitments and rising costs of highway construction projects. The

state legislature prohibits the TPC from recommending major highway projects unless construction can begin within six years.

With growing financial constraints statewide and a backlog of potential projects, competition for funding is likely to grow even more competitive. For these reasons it's critical that the committee work to develop local consensus on the long-term needs and location for STH 26. Typically, projects that were enumerated in the past have been well-organized locally, had strong local support, planning documents that support the project, and in some cases, right-of-way for a preferred alternative either officially mapped or purchased.

**Table 12, Address Long-term Needs of STH 26 North of STH 60 - Strategies and Recommendations**

Strategy/Recommendation	Jurisdiction:	2004-2006	2006-2008	2008-2012	Report Reference
	<ul style="list-style-type: none"> <li>▪ State</li> <li>▪ County</li> <li>▪ Local</li> <li>▪ Collaborative</li> </ul>				
Identify agency to lead long-term STH 26 planning process.	<ul style="list-style-type: none"> <li>▪ Local</li> <li>▪ County</li> </ul>	x			
Organize regionally affected municipalities.	<ul style="list-style-type: none"> <li>▪ Local</li> <li>▪ County</li> </ul>	x			
Determine whether a new STH 26 alignment bypassing the city of Juneau is needed.	<ul style="list-style-type: none"> <li>▪ Local</li> <li>▪ County</li> </ul>	x	x		
Develop several alternatives that would meet the region's needs.	<ul style="list-style-type: none"> <li>▪ Local</li> <li>▪ County</li> </ul>		x		
Officially Map new STH 26 corridor.	<ul style="list-style-type: none"> <li>▪ Local</li> <li>▪ County</li> </ul>		x		
Understand the NEPA requirements.	<ul style="list-style-type: none"> <li>▪ Collaborative</li> </ul>	x	x	x	
Understand the TPC process.	<ul style="list-style-type: none"> <li>▪ Collaborative</li> </ul>	x	x	x	
Work with WisDOT to determine long-term STH 26 solutions.	<ul style="list-style-type: none"> <li>▪ Collaborative</li> </ul>	x	x	x	

## **6.8 Integrate Local and Regional Multi-modal Needs with the STH 26 Corridor Plan**

Major transportation projects like the STH 26 expansion have far-reaching impacts on communities. They affect land use patterns, economic development, travel time, and the local quality of life. In some cases, the improvements will take place on-alignment. In the cities of Milton, Jefferson, and Watertown where the entire city will be bypassed, the new alignment has the potential to have significant impacts on the communities, especially multi-modal transportation needs.

### **6.8.1 Barrier Effect of Highways**

One impact that communities and WisDOT can work collaboratively to avoid is the barrier effect. In reference to transportation projects, the barrier effect is created when a new or expanded highway separates adjacent land uses. The barrier effect can be psychological or physical.

The psychological barrier effect may manifest itself in more than one form. There are numerous examples of highways and streets throughout Wisconsin where the distance between opposite sides is perceived to be so great that pedestrians and bicyclists feel unsafe crossing the facility. Even with clearly marked crosswalks, pedestrians may be reluctant to cross the road even though they are physically able to do so. High traffic speeds or volumes may also cause a similar effect. Facilities may exist to cross the street but high-speed traffic may not allow the pedestrian or bicyclist enough time to cross the road. Similarly, high traffic volumes may result a traffic flow so dense that there are limited gaps in traffic to cross the street. This problem is even more acute for the elderly, handicapped, and for parents with young children.

Elevated highways or highways without bike and pedestrian facilities can also act as a physical barrier. Without properly planned and spaced bike and pedestrian facilities, pedestrians may choose to travel by automobile when their preference is to walk or bike. Barriers may also cause indirection for drivers as well. If connections between land uses are not planned, travelers may have to travel several miles out of their way to reach their destination. Barriers may occur at the site level too. Walls or fences may separate land uses that should be connected for vehicles and/or pedestrians.

### **6.8.2 How to Avoid the Barrier Effect**

There are several techniques that the state and local communities can use to avoid or minimize the barrier effect.

- Integrate bike and pedestrian facilities with existing parallel roads so these needs are accommodated near the STH 26 corridor

- Support pedestrian friendly developments (the TND development planned for much of the corridor are based on this concept) that feature:
  - Pedestrian scale buildings
  - Provision of sidewalks, trails, and bike routes
  - Locate municipal, retail, and commercial building within walking distance of housing
- Install box culverts or pedestrian overpasses at major roadways to link areas of high bike/pedestrian traffic
- Provide bike and pedestrian facilities at interchanges

### **6.8.3 Local Bike and Pedestrian Facilities**

Local communities and the project team invested a significant amount of time in identifying local and regional bike and pedestrian connections. In communities where residential growth is planned on both sides of STH 26 (either the existing or new alignment), special consideration should be given to linking the developments and avoiding the barrier effect.

As shown in an example (Exhibit 17, Bike and Pedestrian Connections), several bike and pedestrian, or bike exclusive, routes are recommended around the city of Watertown. As the land use plan indicates, the city of Watertown is planning a significant amount of residential development outside of the bypass over the next twenty years. Linking the new residential development to city resources such as Quarry Park and Watertown high school will be important for families and students. Welsh Road will be a key facility linking the city and the planned development. One of the most critical links is at the intersection of STH 26, Welsh Road, and the railroad tracks. The city and WisDOT should plan a link from the planned residential area to Quarry Park and the high school.



#### **6.8.4 Regional Bike and Pedestrian Facilities**

Bike, pedestrian, and recreational trail planning has also occurred at the state and county level. The 2001 State Trails Network Plan, published by the WDNR, lists existing and potential trails throughout the state that are broken down by region. The South Central Region covers the STH 26 project study area. Segment 33 identifies a 48-mile trail that would extend from the city of Janesville to Clyman Junction. The components of this trail include:

- Janesville to Milton connection using the Ice Age Scenic Trail (needs to be completed)
- Milton to Fort Atkinson connection using Jefferson County's Glacial River Trail (using highway and rail right-of-way)
- Fort Atkinson to the south end of the Wild Goose Trail in Clyman Junction (using highway or rail right-of-way)

The Dodge County Bike Plan identifies one route from the Wild Goose Trail trailhead at STH 33 south to Watertown. This route would also be one section of the Fort Atkinson to the Wild Goose Trail connection mentioned in the WDNR plan. The Dodge County Plan also shows another route from Juneau south along the STH 26 right-of-way to Watertown.

#### **6.8.5 Snowmobile Facilities**

Snowmobiling is a popular activity in the project study area. There are numerous snowmobile trail crossings of STH 26 that currently exist, particularly on the rural segments. Representatives of the local snowmobile club have attended project meetings and are aware of the changes planned for the highway. In the long-term, snowmobile trails will need to be rerouted to adapt to changing land use patterns. Many are relatively close to existing urbanized areas and would eventually need to shift away from the development.

The EIS changes to STH 26 present a unique opportunity to collaboratively plan for bike, pedestrian, and snowmobile trails as many of their needs, particularly related to crossing STH 26, are similar. For that reason, the formation of a multi-county recreational trail system committee is recommended.

#### **6.8.6 Multi-County Recreational Trail System Committee**

Throughout the Corridor Plan's public involvement process, the public and local officials have expressed a strong desire to make a trail connection from Janesville to Clyman Junction as explained in the WDNR's State Trails System Plan. Numerous options have been discussed locally. However, a lead-agency to make this plan a reality is needed.

A multi-county committee should be formed to lead this effort. Local officials representing the segment from Janesville to the Jefferson County line have stated that this connection is a high priority to them and potential right-of-way has already been identified. The STH 26 Corridor Plan's recommendation is that the committee include the following entities:

- Rock County
- Jefferson County
- Dodge County
- City, village, and town governments
- Bike, pedestrian, and trail enthusiasts
- Snowmobile club representatives
- Railroad companies
- Landowners
- WisDOT
- WDNR

The purpose of the multi-county recreational trail system committee would be to:

- Identify ways to acquire right-of-way to connect a trail from Janesville to Clyman Junction
- Identify community needs related to trail crossings of STH 26
- Identify key resources to link
- Prioritize connections
- Seek funding and ways to move projects forward
- Collaborate with state agencies (WDNR and WisDOT) to maximize the committee's potential
- Identify uniform trail standards for signage and trail markers. Develop community-specific trailhead gateways

**Table 13, Integrate Local and Regional Multi-modal Needs with the STH 26 Corridor Plan - Strategies and Recommendations**

Strategy/Recommendation	Jurisdiction: ▪ State ▪ County ▪ Local ▪ Collaborative	2004-2006	2006-2008	2008-2012	Report Reference
Understand and limit the barrier effect of STH 26.	▪ Collaborative	x	x	x	
Integrate bike and pedestrian facilities with existing roads.	▪ Local ▪ County	x	x	x	
Support pedestrian friendly developments.	▪ Local	x	x	x	
Install box culverts or pedestrian overpasses at major roadways to link high bike/pedestrian traffic areas.	▪ Collaborative		x	x	
Develop uniform trail standards and signage.	▪ Local ▪ County		x	x	
Form multi-county trail system committee to link trails of the STH 26 corridor.	▪ Collaborative	x			
Identify funding sources to move trail connection project forward.	▪ Collaborative	x	x		
WisDOT should meet with snowmobile clubs to coordinate regarding the STH 26 improvements.	▪ Local ▪ State	x			

## **6.9 Protect Natural and Scenic Resources on STH 26**

### **6.9.1 Maintain Scenic Viewsheds**

Many communities are placing an increasing emphasis on quality of life by identifying ways to restore or to enhance the appearance of their town using existing cultural and natural resources. The STH 26 improvements, particularly the bypasses, will create a profound visual and physical environmental change to the landscape. Working collaboratively, communities and WisDOT can maximize the benefits of this project by identifying scenic viewsheds from existing and new transportation facilities.

One means of capturing the maximum benefit of the construction is by conducting a Visual Impact Analysis (VIA). The VIA has six essential steps and each step answers a fundamental question.

1. What visual resources of the natural, cultural, or highway environments would be affected by the proposed project? (e.g. rivers, historic buildings, woodlands etc.)
2. Whose views would be affected by the proposed project? (e.g. landowners, pedestrians, bicyclists, tourists, drivers, neighborhoods, etc.)
3. What do people like and dislike about the existing scene? (e.g. environmental context, harmonious/disharmonious relationship to surroundings, etc.)
4. What will people like and dislike about the changes the proposed project would cause to the existing scene? (e.g. aesthetic value, skyline, level of change, community identity, etc.)
5. What visually, are the relative advantages and disadvantages between alternatives? (e.g. perception of community character, community identity, etc.)
6. How can adverse visual impacts be avoided, minimized, or compensated? (building height limitations, visual screenings, architectural design guidelines, etc.)

When the VIA methodology was developed, its original application was during the highway alternatives phase. The STH 26 project is beyond that point but the VIA process does provide a framework for future visual impact analyses. This methodology could be applied to any type of development project - not just transportation projects. Other applications include residential, industrial, and commercial developments.

Communities may wish to employ an abbreviated version of the VIA that answers the question “What visual resources along the STH 26 corridor should be protected?”

Regardless of the type of VIA conducted, communities should place special emphasis on the protection and/or enhancement of existing resources such as:

- Crawfish River (city of Jefferson)
- Rock River (cities of Fort Atkinson, Jefferson, and Watertown)
- Covered Bridge Recreational Trail (town of Koshkonong)
- Storrs Lake State Wildlife Area (city of Milton)
- Horicon Marsh (town of Burnett)

Some communities have included a section in their comprehensive plans that identify “Key Vista Locations.” These are locations within the community that, because of their elevated position, offer unique views of the surrounding landscape. Some examples of the key existing vista locations include:

- Village of Johnson Creek – Water tower at Hartwig Boulevard (views of I-94 and STH 26)
- Village of Johnson Creek – Hill on CTH B, east of the village (view of the village)
- City of Watertown – On STH 26 about two miles south of the city limits (view of city on the northern horizon)

Protection of the resources and vistas is primarily a local effort. Communities can use several tools to help protect resources including conservation easements, overlay zoning, historic districts, design guidelines, and transfer of development rights. Managing development of off-site billboards is another way to improve the visual aesthetics of a community. For additional information on managing the visual impacts of billboards see Appendix H, Model Billboard Ordinance.

Protecting scenic beauty offers communities many benefits, such as higher property values and increased tourism revenue. Preserving scenic vistas and viewsheds helps a community to preserve its unique charm, build civic pride, and attract positive growth.

The first step locally is to form a committee to identify scenic vistas and viewsheds. Once the resource inventory is complete, the committee can identify priority areas and work with local elected officials, conservation groups, and private landowners to protect the areas using the tools mentioned above.

### **6.9.2 Wetland Preservation**

Wetlands are defined as areas that range along a gradient from permanently flooded to periodically saturated soil and support hydrophytic (water-loving) vegetation at some time during the growing season. Wetlands are important for many reasons. They help minimize flooding by holding moisture and slowly discharging it into the ground, which recharges aquifers. Water filtration is another attribute of wetlands. Vegetation takes up excess nitrogen, phosphorus, copper, and other heavy metals brought in by surface runoff. Wetlands are also important as wildlife nesting and wintering habitat.

Wetlands should be protected from development whenever possible. Their protection could be part of a scenic viewshed protection program and/or part of a stormwater drainage and farm field protection program (see Section 6.10, Minimize STH 26 Impacts on Agriculture). Many residential developments use creative site plans that treat wetlands as resources that add value to the development rather than obstacles that must be overcome. Wetlands can be a component of natural stormwater retention, treatment, and infiltration systems that help reduce the need for costly stormwater systems and detention ponds.

WisDOT must mitigate the wetland impacts of the STH 26 EIS improvements either through an on-site wetland mitigation program or a wetland banking system. There are several programs local communities can use to preserve wetlands. These programs include:

- *Wetland Reserve Program (WRP)* - Program sponsored by the Natural Resource Conservation Service (NRCS) that offers landowners compensation for restoring wetlands on land that was drained for agriculture. Establishes easements of 10 or 30 years or a lifetime agreement.
- *Conservation Easement* - A legal agreement between a landowner and a land trust or government agency that permanently limits uses of the land to protect wetlands. Property owner retains title to the land but loses certain rights (such as development).
- *Fee-Simple Purchase* - Land trusts, government entities, or non-profit agencies purchase land in order to preserve it in perpetuity. Land is typically donated to a state or county agency for long-term maintenance.

### **6.9.3 Archaeological/Historical Site Protection**

Any projects that use federal funds are required to go through the NEPA process. One part of this process is identifying impacts to archeological/historical resources.

As part of the EIS analysis, archeological sites along the existing STH 26 corridor (I-90 to STH 60) and potential alignment alternatives were documented based on an archival and literature search with a subsequent field survey. Archeological site density is highest southeast of Lake Koshkonong between the cities of Milton and Fort Atkinson and around the city of Jefferson. Sites were also identified around the city of Watertown but with less frequency. Most of the identified sites are prehistoric Native American with a few historic Euro-American sites.

Historical sites were also researched. This includes buildings and sites on the National Register of Historic Places (NRHP) as well as potentially eligible buildings and sites. Some familiar buildings that are already on the NRHP include the Jefferson Public Library building, Slight's Standard Filling Station north of the city of Watertown, and the Milton House in the city of Milton.

Many of the identified sites carry special protection from the federal government. It is strongly recommended that the possibility of protection for these sites be investigated prior to any development. The archeological and historical research conducted for the STH 26 EIS is a rich source of information for local communities. As part of the local planning process, they may wish to obtain this data to identify sites for protection. Comprehensive plans can then identify land uses that do not compromise the integrity of the sites.

**Table 14, Protect Natural and Scenic Resources on STH 26 - Strategies and Recommendations**

Strategy/Recommendation	Jurisdiction:	2004-2006	2006-2008	2008-2012	Report Reference
	<ul style="list-style-type: none"> <li>▪ State</li> <li>▪ County</li> <li>▪ Local</li> <li>▪ Collaborative</li> </ul>				
Set up coordination meetings between WisDOT, WDNR, and locals governments to share information and data so it can be incorporated into land use plans and protected.	<ul style="list-style-type: none"> <li>▪ Collaborative</li> </ul>	x	x	x	
Maximize scenic views of the Rock River when making STH 26 design and land use decisions.	<ul style="list-style-type: none"> <li>▪ Collaborative</li> </ul>	x	x	x	
Address drainage on a parcel-by-parcel basis during the highway design phase.	<ul style="list-style-type: none"> <li>▪ Collaborative</li> </ul>	x	x	x	
Identify viewsheds for local protection and enhancement.	<ul style="list-style-type: none"> <li>▪ Local</li> <li>▪ County</li> </ul>	x			
Protect wetlands from development or incorporate their protection into site design.	<ul style="list-style-type: none"> <li>▪ Local</li> <li>▪ County</li> </ul>	x	x	x	
Identify and participate in wetland preservation programs.	<ul style="list-style-type: none"> <li>▪ Local</li> <li>▪ County</li> </ul>	x	x	x	
Protect archeological/historical sites from development.	<ul style="list-style-type: none"> <li>▪ Local</li> <li>▪ County</li> </ul>	x	x	x	
Form a local committee to identify scenic resources and viable ways to protect them..	<ul style="list-style-type: none"> <li>▪ Local</li> <li>▪ County</li> </ul>	x	x		



## **6.10 Minimize STH 26 Impacts on Agriculture**

Agricultural land use is an important part of the study area's economy and culture. Active agricultural production is most common in the rural areas, located throughout the corridor. Farm production consists primarily of corn and soybeans, cattle, hogs for breeding and pigs for meat production. According to the 1997 Agricultural Census, the average farm size in Rock, Jefferson, and Dodge Counties is increasing while the total number of farms is decreasing.

As the EIS for the STH 26 improvements indicate, there will be direct, secondary, and cumulative impacts to the agricultural land in the project study area. Both positive and negative impacts will result from the conversion of agricultural land to road right-of-way and more intense land uses such as industrial and residential development.

### **6.10.1 Stormwater Drainage and Farm Fields**

Stormwater drainage changes that result from highway construction projects can adversely impact farm operations. Stormwater drainage is of particular concern in areas on the urban fringe, where higher intensity land uses abut agricultural land. Increasing impermeable surface areas and decreasing rates of natural stormwater infiltration may flood adjacent farm fields. Standing water in fields may delay spring planting, damage young crops, and/or ruin an established crop for an entire growing season. Increased stormwater flow onto agricultural fields may create a non-point source pollution problem in neighboring creeks, streams, and rivers. Erosion from the fields may carry valuable topsoil and recently applied fertilizers, pesticides, and herbicides into the waterways.

There are two "best practices" which have been found to improve the coordination between WisDOT and farmers on drainage issues:

Aerial maps with the proposed alignment should be prepared for landowner review. Farmers can assist highway designers in identifying potential problem areas by making designers aware of existing problem areas and identifying potential solutions.

The designers should hold public meetings inviting farmers are invited to specifically address farm field access and drainage issues. The designers should follow up with individual farmers who do not attend the meetings to insure that there is opportunity to share concerns and information that will improve the design and alleviate future problems.

Municipalities and developers should be prepared to address drainage issues thoroughly for new development proposals near STH 26. The site design should incorporate proper erosion control and stormwater conveyance systems that minimize the impacts of stormwater drainage

on neighboring farm fields. This will be important during construction and at project completion.

#### **6.10.2 Transportation Improvements, Agricultural Access, and Safety**

As explained in Section 6.6, Manage STH 26 Expressway Sections Over Time, much of STH 26 will be constructed as a freeway. The freeway sections provide direct field access to STH 26. On the expressway sections, agricultural entrances are permissible but need to be managed to minimize the conflict between agricultural equipment and high speed STH 26 traffic.

The guide prepared for communities to use when preparing the agriculture element of their comprehensive plans “Planning for Agriculture in Wisconsin”, discusses the issue of safety with regard to agriculture transportation issues in some depth. In 2001, there were 201 crashes between farm tractors and motor vehicles. The safety issues farmers face when moving equipment between fields, or between fields and barns are significant. Farmers are both frustrated and fearful when they are attempting to share the road with drivers who do not respect or understand their need to use the roadway.

Agricultural land use will remain an important part of the corridor’s economy for many years to come. In order to maximize farm productivity and viability, landowners, local governments, and WisDOT should identify ways to minimize the impact of transportation improvements on agricultural lands. Farm owners should try to access their properties from local roads wherever possible and develop access agreements with neighboring farms to allow them to move equipment across fields. The local governments should work with WisDOT to identify local road connections that will help maintain access between farm fields and farmsteads. Field and farmstead access should be addressed using the “best practices” discussed in Section 6.10.1 Stormwater Drainage and Farm Fields.

When planning for the changes related to STH 26, it will be important for local municipalities to work with their highway commissioners and WisDOT to consider how to meet the transportation needs of existing farm operations. “Planning for Agriculture in Wisconsin” and the WisDOT “Transportation Planning Guide” are references that can assist these efforts.

#### **6.10.3 Ways to Maintain an Agricultural Community**

Many of the residents of urban areas value the “rural character” of the area surrounding their city or village, and many town residents also value the rural nature of their surroundings. Often, residents do not understand what preserving a rural community requires. The new pressures agriculture will face related to the highway expansion project only multiply the many challenges already facing farmers,

including low commodity prices, high input costs, and the capital investments needed to successfully farm. Local communities that want to retain a significant agricultural base will have to employ a variety of strategies to achieve their goal. For an area to remain rural, the following is necessary:

- Both rural and urban communities must encourage/require efficient land use and deliberately act to preserve rural agricultural lands.
- The larger community must engage in economic development planning for agriculture.
- Rural communities must adopt regulations and practices that support agriculture.

Each of these issues is discussed in more detail below.

#### 6.10.3.1 Encourage/Require Efficient Land Use

There are several national demographic and housing trends that have resulted in less efficient land use. America's average household size is decreasing while the country's population is increasing. This means more homes are needed to house the growing number of households. Couples are waiting longer to have children and have fewer children than a couple of 40 years ago. American's are also wealthier than ever before and expect higher-quality goods and services in their everyday lifestyle.

The result of these trends is a greater number of homes, set on larger lots, at an increasing distance from traditional urban centers. Suburban and ex-urban developments typically have a much lower density than traditional housing patterns. Suburban and ex-urban homes have lot sizes that range from a quarter-acre to 10 acres in size. Discontinuous developments result in fragmented landscapes that can make assembling contiguous farm parcels difficult and/or expensive. In areas where active farming operations are near rural development conflicts often occur. Former urban residents are unaccustomed to many of the conditions associated with normal farming operations including unpleasant smells, dusty fields, slow moving vehicles, and loud machinery.

To promote more efficient land use, there several strategies communities can use. As discussed in Section 6.3.19, Traditional Neighborhood Developments, TND's are based on a more efficient form of land use. Single-family home lot sizes are much smaller than lots in typical suburban developments. Additionally, TND often incorporates multi-family housing within the development, further increasing the number of dwelling units per acre and reducing the total amount of land necessary on a per unit basis. Development does not have to be of the TND variety in order to be efficient. The most

important factors are contiguity with existing developments and an efficient layout of the new lots. The original centers of many of the corridor communities (such as the cities of Jefferson and Watertown) were based on a grid system of housing development. This organization results in an orderly street and housing layout that makes better use of the land than suburban development with a curvilinear street layout and cul-de-sacs.

Numerous innovative techniques exist to help preserve agricultural land. Some have been successfully implemented in Wisconsin and others have not. Some of the possible preservation techniques include:

- *Conservation Easement* – Landowners give up their right to develop their agricultural land but receive a lower assessed value, a tax write off, and in many cases, a cash payment from a land trust, county fund, or some other organization.
- *Purchase of Development Rights* (PDR) – Landowners retain title to their land but the development rights are purchased for an approximation of the market rate. PDR is similar to a conservation easement in that assessed land value is reduced.
- *Transfer of Development Rights* (TDR) – Within a municipality, sending and receiving zones are identified where a landowner in a receiving zone purchases development credits from a landowner in a sending zone. Once the development rights are purchased from the land in the sending zone, no development can occur on the land.
- *Conservation Subdivision* – Residential development technique that uses smaller lot sizes than normally required to preserve open space. For additional information on this topic see Appendix I, Model Conservation Subdivision Ordinance.
- *Impact Fees* – Developers are charged an impact fee to fund services provided to new residents. This practice can create a disincentive for developing agricultural lands.
- *Density Bonus for Animals* – Counties may limit the number of animals that can be raised on a parcel of land through a permit system. A density bonus would allow a producer to have more animals when appropriate environmental measures are taken.
- *Exclusive Agriculture Zoning* – Zoning classification that limits parcels to a minimum size of 35 acres. By maintaining the 35-acre parcel size, landowners are eligible for tax credits under the Farmland Preservation Program.
- *Minimum Lot Size*– Creates a minimum lot size of 25, 50, or 100-acres on which there can only be one dwelling unit. The purpose

of this policy is to limit agricultural land fragmentation caused by residential development and maintain viable agricultural lot sizes.

- *Density Limits* – To limit the number of dwelling units per specified land area, density limits can be established. Typical density limits range from 1:20 (1 house to 20 acres) to 1:40 acres. Thus, if the local zoning ordinance calls for a 1:40 density restriction, two dwelling units are permissible on an 80-acre parcel.

#### 6.10.3.2 Economic Development for Agricultural Preservation

To make farming a viable economic industry, municipalities should do their part to support the local farm economy. Local markets should be identified where farmers can sell their goods directly to the public or to local stores. Eliminating the middleman helps direct more of the profits back to the farmer. Community supported agriculture (CSA) is another way to support local farms. Individuals or families buy a “share” in the CSA prior to the growing season and receive a designated amount of seasonal fruits, vegetables, meat, honey, or dairy products each week.

Municipalities can play a role in supporting local farm expansion and modernization efforts. Expansion can help increase output and gross sales volume. It may also result in increased production efficiency and lower production costs. Modernization programs help disseminate technological advances and management techniques. The role of municipalities could entail financial or technical assistance. They may also organize information exchange networks to facilitate communication between farmers.

Diversification of commodity production can help farmers maintain financial solvency. Commodities that are not commonly grown/raised that would aid in diversification include edible fruits and vegetables, herbs, milking goats or sheep, and exotic animals such as deer, elk, emus, llamas, and alpacas.

Another mechanism for farmers to generate additional revenue is to produce energy sources. Biomass and ethanol plants can use crops such as grass and corn to produce energy. Wind energy is another potential income source. Most of the STH 26 project study area was identified as having moderate potential for power. Wind farms can be controversial and special planning is needed to site these facilities.

Municipalities can support the local agricultural community by planning for and encouraging the development of value-added agricultural industries in their community. These industries include processors, wholesalers, and retailers. A large percent of the total consumer cost comes from the value-added component of agricultural production where products are cleaned, processed, canned, shipped, etc. By keeping these services on-site or within the community, total

consumer cost may be lowered and/or a greater percent of the consumer expenditure may be locally captured.

Agriculture is an important part of the economy and culture of many communities along the STH 26 corridor. Communities interested in preserving agriculture as a viable economic opportunity should implement land use and economic programs that will help preserve this industry and way of life. An ideal time to consider agriculture preservation programs would be when communities update or start their comprehensive plan. Success will require a high level of coordination between the public and local and county governments. Planning and developing a multi-faceted agricultural retention and expansion program will help ensure the long-term viability of the local agricultural communities.

#### 6.10.3.3 Policies and Practices that Support Agriculture.

Many communities have expressed an interest in limiting the amount of non-agricultural development in rural areas. Communities can locally adopt policies that support this goal.

In counties experiencing rural residential development, farmers and homeowners may be concerned about the conflicts between farm and non-farm land uses. Residential landowners may be unaccustomed to the sites, sounds, and conditions inherent to agricultural land use. Dust, noise, and odors are a few of the unique factors that may lead to tenuous living conditions.

One means of minimizing conflicts between agricultural and non-agricultural neighbors is by protecting the “right to farm” and notifying new residents of typical agricultural conditions. Wisconsin’s nuisance statute (Ch. 823.08) was amended in the 1990s to clarify and expand the specific rights of farmers to be protected against unreasonable lawsuits. Agricultural practices cannot be found to be a nuisance if the following conditions apply:

- The agricultural use or practice alleged to be a nuisance preexisted before the complainant moved to the area; and
- The agricultural use or agricultural practice does not present a substantial threat to public health or safety.

Locally, communities can adopt notification ordinances whose purpose is to avoid conflicts by notifying rural homebuyers about the conditions typical to agricultural practices. The most important part of the ordinances is the disclosure requirement. This is a statement that potential homebuyers sign, acknowledging that they understand the conditional endemic to an agricultural area.

**Table 15, Minimize STH 26 Impacts on Agriculture - Strategies and Recommendations**

<b>Minimize STH 26 Impacts on Agriculture</b>	<b>Jurisdiction: State County Local Collaborative</b>	<b>2004- 2006</b>	<b>2006- 2008</b>	<b>2008- 2012</b>	<b>Report Reference</b>
Use stormwater control techniques to minimize drainage and flooding issues.	Local	x	x	x	
Plan long-term access to farm fields. Explore cross-access agreements and local road connections.	Collaborative	x	x		
Consider incorporating innovative agricultural land preservation techniques in land use plans and regulations.	Local and County	x	x	x	
Consider “right to farm” regulations.	Local and County	x	x		
Follow best management practices when designing highway improvements to minimize negative drainage impacts.	WisDOT	x	x	x	
Explore techniques for preserving agricultural land such as PDR, TDR, and agriculture preservation areas.	Local and County	x	x	x	
Formulate agricultural economic development strategy to help maintain the viability of agricultural enterprises.	Local and County	x	x	x	

## **7.0 Plan Implementation**

The STH 26 Corridor Plan is an advisory document that establishes both general and community-specific strategies and recommendations. Implementation of the majority of the strategies and recommendations should occur within ten years but many of the strategies should be implemented sooner (within the next three years).

The Corridor Plan was developed with a high level of local involvement from throughout the three-county planning area. Ultimately, it is the local communities that will determine the success of the STH 26 Corridor Plan as most of the strategies require local or collaborative implementation. WisDOT will continue to work collaboratively with local communities to assist in recommendation implementation and serve as a project resource.

### **7.1 Implementation Schedule**

Once communities receive the STH 26 Corridor Plan, they should review the strategies and recommendations contained within the Corridor Plan. By reviewing the strategies and recommendations, particularly those found in Section 8.0, Community-specific Strategies and Recommendations, the reviewing community will gain a better understanding of the other communities and agencies they need to coordinate with on the issues.

The maps that are provided to communities should be referred to at plan commission meetings and at regular city council, village board, and town board meetings. WisDOT staff is available for consultation at these and other meetings. WisDOT will also be available to review comprehensive plans, transportation plans, proposed developments, and any other actions that affect the state's highway system.

One year after the STH 26 Corridor Plan is completed, WisDOT plans to meet with all of the STH 26 communities. The purpose of this meeting will be to check-in with communities on the strategy and recommendation implementation.

#### **7.1.1 Next Steps from the Transportation/Land Use Planning Conference**

As part of the WisDOT/SEH hosted Transportation/Land Use Planning Conference, attendees representing many of the communities along the STH 26 corridor participated in implementation breakout groups to identify priority issues that should be addressed in the coming months.

Three groups were formed with the following limits and including the following communities:

- City of Janesville to the Town of Jefferson
- Town of Harmony to the Town of Emmet



- Town of Emmet to the City of Waupun

In addition to the three groups listed above, an intergovernmental cooperation breakout group was also formed for those communities interested in creating a forum for communication across political jurisdictions.

#### 7.1.1.1 City of Janesville to the Town of Jefferson

The top priorities for this group included establishing boundary and intergovernmental agreements and addressing potential bypass impacts to community central business districts (CBD).

#### 7.1.1.2 Town of Harmony to the Town of Emmet

Access management and land use were important topics of focus for this group. Within the two topical areas, the development of transportation supportive ordinances to support shared access; and the creation of transportation overlay zones to allow communities to achieve transportation supportive goals were identified as the most important issues. In the land use arena, intergovernmental cooperation in the form of boundary agreements, annexation, and revenue sharing were identified as important goals to achieve. Corridor-wide aesthetics was also an important issue identified by the group to address in the coming year.

#### 7.1.1.3 Town of Emmet to the City of Waupun

The group members identified protecting and mapping the STH 26 corridor between STH 60 and USH 151 as a top priority. The purpose of mapping the corridor would be to identify potential routes for future STH 26 improvements if and when needed, and work out jurisdictional transfer issues pertaining to the transportation system. The group saw official mapping as a tool to achieve this. The group also identified coordination between the county and local governments regarding transportation and planning regulations as important.

#### 7.1.1.4 Intergovernmental cooperation breakout group

The breakout group met to identify potential sponsors for on-going collaboration between local governments to continue discussions of opportunities for intergovernmental cooperation and information sharing. Several potential sponsors were identified for this purpose. Some of the potential issues for discussion at future meetings include:

- A regional trail system.
- Protection of the Crawfish and Rock River corridors.
- Opportunities to update existing county planning documents.
- Regional development expectations and standards.

- Discussions pertaining to transportation overlay zoning, the creation of interchange districts, local roadwork control, and the road network.
- Intergovernmental land use agreements (IGLUA).

### **7.1.2 Next Steps for WisDOT**

Part III includes community specific plans and recommendations. Each of the communities will receive Part I and Part II of the STH 26 Corridor Plan and strategies and recommendations appurtenant to their community from Part III. The communities will receive a hard copy of the map(s) that fall within their jurisdiction and a CD to access information for outside their area. The recommendations they receive will be based on these categories:

- Access
- Land use planning
- Transportation
- Interchange areas
- Multi-modal

As part of the STH 26 Corridor Plan implementation, WisDOT is committed to provide assistance to local governments as they undertake implementation of the Plan. WisDOT can provide limited assistance to local communities in the form of answering questions pertaining to state transportation plans and policies, providing minor technical assistance where appropriate, facilitate the information sharing process between state projects affecting local communities, and help local projects compliment the state transportation system. Where local transportation and land use planning efforts have a potential to affect state transportation goals and projects, WisDOT would continue to play a collaborative role with local communities.